

CALIFORNIA ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION  
FUELS AND TRANSPORTATION COMMITTEE WORKSHOP  
ON THE  
CALIFORNIA STRATEGIC FUELS RESERVE

HEARING ROOM A  
CALIFORNIA ENERGY COMMISSION  
1516 NINTH STREET  
SACRAMENTO, CALIFORNIA

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COMMITTEE MEMBERS PRESENT

James D. Boyd, Commissioner, Presiding Member

Susan Bakker, Commissioner Advisor

Mike Smith, Commissioner Advisor

STAFF PRESENT

Pat Perez

Gordon Schremp

CONSULTANTS

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## 1 P R O C E E D I N G S

2 PRESIDING MEMBER BOYD: Good morning,  
3 and welcome. My name is Jim Boyd, I'm the  
4 Presiding Commissioner of the Fuels and  
5 transportation Committee. Commissioner Keese, the  
6 Second Member of the Committee, is out of town  
7 dealing with a power plant siting hearing today  
8 and is unable to be with us. I'm not quite sure  
9 whether I'd rather be there or here. Having just  
10 done one of those two days ago that went about 15  
11 hours, why, I think this is a much better place to  
12 be.

13 With me here today, on my right, is  
14 Susan Bakker, my advisor. We expect to be joined  
15 momentarily by Mike Smith, who is advisor to  
16 Chairman Keese. And also, of the Staff, Pat Perez  
17 and Gordon Schremp.

18 I think, as everybody knows, we're here  
19 today to discuss the work of the Commission's  
20 contractor on the question of the subject of  
21 feasibility of developing and operating a  
22 Strategic Fuels Reserve in California, presumably,  
23 or allegedly, to insulate California business,  
24 California consumers, et cetera, from large short-  
25 term price increases that can arise from refinery

1       outages and various and sundry other types of  
2       supply interruptions.

3               The Energy Commission was requested, or  
4       required, literally, by the legislature, through  
5       Assembly Bill 2076, to examine this issue  
6       following a series of refinery outages that caused  
7       fairly significant price spikes in the California  
8       fuel market in 1999. The Energy Commission has  
9       retained Stillwater Associates and Drew Laughlin  
10      as its consultants to assist in evaluating this  
11      feasibility of establishing and creating a  
12      strategic petroleum reserve.

13             One important matter of, I guess almost  
14      housekeeping. We recognize that many, if not most  
15      of you, have not had a lot of time, we have not  
16      provided a lot of time to review the contractor's  
17      report in advance of this workshop. And I'm sure  
18      something as important a subject both deserves and  
19      people would like more time. So the Committee has  
20      agreed that we will hold a second workshop on this  
21      report in several weeks, and we want to allow you  
22      more review time and to soak up the discussions  
23      that take place here today. So we want to provide  
24      plenty of time to get public and stakeholder input  
25      on the subject of today's hearing, and on the

1 contractor's report.

2 Perhaps for some, or many of you, this  
3 will be the first time that you will see or learn  
4 about the contents of the contractor's report. So  
5 we request everybody here to listen, to pay close  
6 attention to today's presentation, to please, in  
7 this afternoon's open forum, ask any and all  
8 questions. And in turn, then we urge you to send  
9 any additional written comments or questions that  
10 you may have on the report, your impressions of  
11 today's presentation, or just your impressions on  
12 the entire subject, please send comments to the  
13 Commission by March 22nd, if possible. I'll  
14 strike the "if possible". Please send comments by  
15 March 22nd.

16 Comments, obviously, on a subject like  
17 this, will be very helpful in us formulating and  
18 formatting this second workshop that we've  
19 promised to have.

20 Another housekeeping item. For those,  
21 if any, listening to this workshop today via  
22 Webcast, I'm told that copies of the power point  
23 presentation that our contractors will be  
24 presenting and other draft reports are available  
25 on the Energy Commission's Web site, at

1       www.energy.ca.gov.

2               With that, I'd like to take just a  
3       moment to go over with you the agenda for today's  
4       workshop, and then we'll get under way.

5               It is our plan to have the contractor's  
6       presentations for what will probably be the  
7       balance of the morning, followed by a lunch break  
8       of roughly an hour, or at least an hour. We will  
9       then open the forum to public and stakeholder  
10      questions, comments, et cetera, on the report.  
11      And then wrap up at the end of the afternoon,  
12      whenever we've finished all the business.

13              As I mentioned earlier, I've proven my  
14      endurance earlier this week, with regard to  
15      workshops and hearings, with sitting through 15  
16      hours, so we'll go as long as you want. But I  
17      don't anticipate that this subject will go outside  
18      the bounds of the normal workday, so hopefully we  
19      can finish in that timeframe.

20              I guess, with that, I'd like to turn the  
21      microphone over to our contractors, and I guess  
22      we're starting with Stillwater.

23              MR. HACKETT: Mr. Commissioner, CEC  
24      Staff, stakeholders, good morning. I'm Dave  
25      Hackett, President of Stillwater Associates.

1 Stillwater Associates is a consulting company that  
2 focuses on downstream issues in the oil industry,  
3 and that means transportation, refining, and  
4 marketing.

5 I'm formerly a 20-year veteran of Mobil  
6 Oil Corporation, where I was the Distribution  
7 Manager for Mobil on the west coast, and led  
8 Mobil's transitions to oxygenated -- the  
9 transitions to oxygenated gasoline, CARB diesel  
10 fuel, the CARB Phase II gasoline, and to Arizona  
11 cleaner burning gasoline. So I'm experienced in  
12 the California and Western Region markets.

13 On our agenda this morning we're going  
14 to discuss the background of this, and  
15 Commissioner Boyd touched on that. We'll talk  
16 about current supply issues, we'll talk about  
17 strategic reserves, give an overview of other  
18 strategic reserves, not only here in the United  
19 States but around the world. We'll talk about  
20 current inventories in California, and  
21 California's fuels market, and we're focusing on  
22 gasoline in this conversation.

23 We'll talk about options for various  
24 types of reserves, and trigger mechanisms, as well  
25 as effectiveness and cost benefit analysis.



1                   As background. As Commissioner Boyd  
2                   said, 1999 was a rough year for refinery  
3                   performance in California. A number of unplanned  
4                   supply outages occurred and prices spiked up. The  
5                   Attorney General created a task force that looked  
6                   at a number of the issues around these price  
7                   spikes, and recommended creation of a Strategic  
8                   Fuels Reserve.

9                   The Assembly then passed several bills  
10                  to have the California Energy Commission look at a  
11                  number of issues, the Strategic Fuel Reserve, the  
12                  pipeline study, which will be the subject of a  
13                  workshop tomorrow, and then a project to look at  
14                  reducing dependence on fuel here in California.

15                 Stillwater Associates was retained by  
16                 the Energy Commission back in August to begin this  
17                 study. The first step in our process was a series  
18                 of stakeholder meetings, where we sat down with  
19                 more than 50 participants in the California fuels  
20                 market, and that included refiners, logistic  
21                 service providers, traders, trading companies,  
22                 government agencies, publications, marketing  
23                 associations, and individual marketers, in order  
24                 to create a comprehensive and complete view of the  
25                 issues that face the California and the western

1 region market.

2 In the midst of all of that, and early  
3 on, we came upon a couple of issues that we spent  
4 additional work with. The first was South Coast  
5 Air Management District's Rule 1178, where we  
6 assisted the Energy Commission in looking at the  
7 rule from a security of supply perspective. And  
8 then the second was the MTBE phase-out, which was  
9 the subject of a workshop about a month ago, where  
10 Stillwater Associates recommended that the phase-  
11 out of MTBE be delayed by three years.

12 We're going to touch on those issues  
13 today, but that's not the focus of today's  
14 workshop. And so today, you are going to see our  
15 preliminary conclusions and proposed solutions.  
16 And, again, the focus is on gasoline.

17 Okay. What's at stake? California has  
18 never run out gasoline. However, the gasoline  
19 market in California is more volatile than any  
20 other market in the world, with the exception of  
21 California electricity. The petroleum industry in  
22 California is very efficient and runs with smaller  
23 inventory, in relative terms, than any other  
24 market. And we discovered in the course of our  
25 analysis that this market is becoming more and

1 more import dependent.

2 There are physical and commercial  
3 barriers to entry that are impediments to imports,  
4 and then, again, our opinion is that CARB Phase  
5 III and the phase-out of MTBE will make things  
6 more difficult. And for those on the Webcast, I'm  
7 now going to page 5.

8 So, what the proposals are not. We're  
9 not proposing a large reserve with an arbitrary  
10 trigger overhanging the market. We're not  
11 proposing government price controls. We do not  
12 see this as an impediment to supply/demand  
13 interaction, nor as unfair competition to firms  
14 that already have deeply invested in the  
15 California market.

16 This won't be built or operated by the  
17 government, although there will be some government  
18 oversight. And we don't see this as favoring one  
19 market segment over another.

20 Going to page -- so that was 6, and now  
21 on 7. I'm going to turn the mic over to Thomas  
22 Gieskes, who is a Vice President with Stillwater.

23 MR. GIESKES: Yeah. Thanks, Dave.

24 Commissioner, ladies and gentlemen, my  
25 name is Thomas Gieskes, and I'm a 20-year veteran

1 with ARCO. I joined them in Europe, was with them  
2 in Asia, and although my experiences have mainly  
3 been on the chemical side, I do have extensive  
4 experience in logistics.

5 I shall walk you through some of the  
6 details behind the current supply issues. To  
7 those of you who have been in the MTBE workshop  
8 recently, some of the information is the same, so  
9 please bear with me. I'm going to -- and we did  
10 do some further work, notably on that.

11 And as Dave pointed out, the California  
12 market has never run out of gasoline, but it's an  
13 extremely volatile market, and is certainly cause  
14 for concern. This graph probably tells it better  
15 than any other graph, and for the Webcast  
16 listeners, I am now on slide number 8.

17 This shows the price differential  
18 between the US Gulf Coast market, which is a very  
19 representative marker for gasoline prices  
20 worldwide, and the LA spot market. And as you can  
21 see, there are two trends in here. One is the  
22 underlying trend for the California market to move  
23 slowly away from the US Gulf Coast, in terms of  
24 average prices, and then it's obvious for anybody  
25 to see that there is an increasing volatility.

1           We call this, between ourselves, our  
2       cardiogram chart. If you see this sort of thing,  
3       you know that the patient is imminent to suffer a  
4       serious heart attack, and that's what we are here  
5       to prevent.

6           So, moving on to the next slide. This  
7       shows the California refinery capacity over a  
8       period of 20 years. And what it shows is a  
9       breakdown of that refinery capacity in gasoline  
10      production, jet fuel, diesel, and heavy fuel oil.  
11      And as you can see, the two trends here are the  
12      increasing capability of refiners to get more  
13      gasoline out of that barrel, and at the same time  
14      a diminishing overall capacity, and I'll come back  
15      to that later when we discuss the -- the treatment  
16      detail.

17           The other thing to note here is that the  
18      remaining spot capacity in the California refining  
19      system is currently less than five percent, and  
20      that is about as close as you can expect anybody  
21      to operate.

22           And what is particularly worrisome, and  
23      this moving on to slide 10, is that as California  
24      goes today, so goes the nation tomorrow. And if  
25      you look at the refining capacity in the US as a

1 whole, then you'll see that with a brief exception  
2 in the period of the late seventies, when the  
3 industry was regulated and there was an almost  
4 guaranteed return on new investment in refining  
5 capacity, and which, of course, resulted in over-  
6 capacity being built, after the '91 deregulation  
7 took place, a lot of the non-profitable refineries  
8 were closed down, refining capacity in the nation  
9 as a whole has not -- and this is crude runs, mind  
10 you -- has not increased. The number of  
11 refineries has gradually diminished.

12 And what this translates to is that of  
13 the current refinery basis, there has been a two  
14 percent capacity creep in the United States  
15 steadily since 1991. However, the nation as a  
16 whole is currently also within, say, its maximum  
17 production capability out of those refineries.  
18 It's not just the crude sales that are running at  
19 95 percent capacity, but also most of the core  
20 units, such as FCCs, et cetera. So the United  
21 States, as a whole, has gone from a gasoline  
22 exporter to a gasoline importer.

23 This goes rather quickly. Moving on to  
24 slide 11. This shows what the crude runs have  
25 done in California over a representative period.

1 And I've taken '94 through 2002, because since '94  
2 that's when the refiners started preparing for the  
3 CARB Phase II phase-in, including quite a few  
4 refinery projects. So if additions had been made,  
5 they would show up in this graph.

6 What it shows is that crude runs  
7 effectively have stayed flat over that ten-year  
8 period. However, gasoline production -- and this  
9 is moving on to slide 12 -- gasoline production  
10 has steadily increased. We first looked at a  
11 slightly shorter period, and were of the  
12 impression that the capacity was 1.6 percent.  
13 It's actually closer to 1.3. And in this 1.3,  
14 there is a certain amount of this capacity that's  
15 generated within the fence, and another part of  
16 that is actually due to increased imports of  
17 blending components. And I will detail that  
18 later.

19 Over that same period, the production of  
20 diesel has actually diminished a little bit, about  
21 .4 percent per year, and the product that's  
22 easiest to import, jet, have decreased by about  
23 1.4 percent a year.

24 So where did the increase in gasoline  
25 production come from. It came mainly from the --

1 as we saw in that first graph with the decreasing  
2 production of residual fuel -- it mainly came from  
3 the refiners being able to convert more out of the  
4 barrel, and it went to the detriment of residual  
5 fuels.

6 And as you can see in this graph, and  
7 I'm on slide 15 now, is that there clearly is a  
8 physical limitation as to how much you can get out  
9 of your residual fuel production and be able to  
10 convert it to gasoline. And that point, we  
11 estimate, is actually around 30 to 40,000 barrels,  
12 so pretty soon that sort of incremental production  
13 of gasoline will come to an end.

14 And with that, I'm going to turn it over  
15 to Tony Finizza, who will talk about what I've  
16 discussed, the five percent being very close to  
17 the maximum capacity and what it means for the  
18 vulnerability of the market supply disruptions.

19 MR. FINIZZA: Good morning. My name is  
20 Tony Finizza. I also, like Tom, used to work for  
21 ARCO. I was Chief Economist, and retired in 1998  
22 from ARCO. Since that time I've been doing  
23 consulting, and teaching at UC Irvine.

24 My task is to talk a little bit about  
25 the character of disruptions, and then later on,



1 I'll talk about the economic impacts of some of  
2 the disruptions we've seen.

3 We're starting on page 17. What I'll be  
4 showing you next are some data that I acquired  
5 from a DOE study of disruptions, in the context of  
6 the power shortages in California last year.

7 In the database, there are 80 total  
8 disruptions, refinery disruptions identified. I  
9 could only find 65 of these where it was possible  
10 to measure both the timing and the impact. So  
11 this database that I'm going to be using here has  
12 49 disruptions that come from OPIS reports.

13 This is a histogram, on chart 18, that  
14 describes the 49 measurable refinery disruptions  
15 since early 1996. You'll see there's a couple of  
16 clusters. The one that's most important, the one  
17 in 1999, when we had a number of refinery  
18 disruptions in northern California, and a  
19 scattering in the year 2000, which were primarily  
20 southern California. These are in thousand  
21 barrels a day.

22 Another way of looking at this  
23 disruption is by examining the frequency that  
24 these disruptions -- which they occur, and one can  
25 see from this chart, number 19, that there are

1       often simultaneous disruptions. Of the 49  
2       disruption categories here, we had some that had  
3       four refineries out at a time. There were two of  
4       those. Seven refineries were out three at a time,  
5       and et cetera. So they can occur simultaneously.

6               Chart 20 examines a frequency  
7       distribution of the size of the disruptions. As  
8       you can see, there are a lot of disruptions that  
9       are in the small end, between one and ten, and ten  
10      and twenty in thousand barrels a day. There are  
11      some that are fairly large, but they occur less  
12      frequently.

13             As a way of postscript, I should mention  
14      that I've been hired separately from Stillwater  
15      Associates by the California Energy Commission to  
16      do this analysis, and to make this a seamless  
17      presentation all of my slides have been integrated  
18      into this presentation, and you can identify my  
19      slides by my name at the lower right-hand side.

20             This chart, number 21, examines the  
21      duration of refinery disruptions. And as you can  
22      see, there are a large number that are short-  
23      lived, one to two and three weeks. In fact, the  
24      mean of this time series is 2.7 weeks. And  
25      there's a cluster of eight or so refinery

1        disruptions in this range, and a couple of very  
2        large outlines of 12 and 22 weeks. But primarily,  
3        refinery disruptions seem to have a short life,  
4        one to three weeks.

5                This is a picture of a particular  
6        disruption in 1999. It describes and shows that  
7        durations of some of these disruptions can occur  
8        somewhere in the six to eight week range, and that  
9        can vary, of course, because they get simultaneous  
10       with other disruptions that occur.

11               The important thing to remember is what  
12       I've plotted in graph 23 is a range -- this is a  
13       weekly line here -- range of normal inventories  
14       for California. This is on a weekly basis. And  
15       also, I plotted the actual inventories at a point  
16       in time at these various weeks.

17               One can observe that of the 49  
18       disruptions in this time period, most of them  
19       occurred at a period under this line here at the  
20       bottom, which reflects lower than normal  
21       inventory, 29 of them. Sixteen of the disruptions  
22       occurred within the band, periods of relatively  
23       normal inventories. And only a few, four, in  
24       fact, at above normal inventories. This in part  
25       could be because when there's strong -- high

1 inventories, disruptions can be accommodated by  
2 drawing from inventories.

3 At this point I'm going to turn it back  
4 to Thomas. I will come back later to discuss some  
5 of the economic impacts of these disruptions.

6 MR. GIESKES: Thanks, Tony.

7 So we've seen that the refineries are  
8 operating at capacity, and even though refiners  
9 are doing a great job to keep these units running,  
10 disruptions happen quite frequently.

11 The annual increase of 1.3 percent that  
12 we saw actually exists for about .6 percent -- and  
13 I'm on slide 24 now -- of increases in component  
14 imports. These are of imports from the US Gulf  
15 Coast and all other parts of the world. And  
16 that's only .7 percent is within the fence  
17 capacity increase in the refinery.

18 The reason that -- and this is based on  
19 feedback that we obtained in our stakeholder  
20 meetings -- the reason why the .7 percent is --  
21 it's fairly low when we compare it to the two  
22 percent average capacity creep in the United  
23 States as a whole over the last 20 years, is that  
24 many of the refiners are up against the Title 5  
25 operating permits, and very often a small increase

1 will trigger a re-permitting of the entire  
2 facility, or maybe part of the facility, which is  
3 a very costly procedure.

4 And another reason is likely that the  
5 California refiners, by comparison with refineries  
6 in the rest of the US, have a much greater  
7 complexity factor, are very, very highly  
8 integrated also on their heat side. And small  
9 projects are more difficult to realize for  
10 technical reasons, as well.

11 Moving on the import side of the  
12 equation. Since we are at capacity and since  
13 capacity additions are difficult to realize,  
14 California has become a net importer of just about  
15 every petroleum product that you can find. What  
16 this graph on page 25 shows is two things. Even  
17 though we're primarily concerned with fuels, it's  
18 good to take a look at crude oil, and what's  
19 happening in crude oil is a shift from imports  
20 from Alaska to imports from more remote locations.

21 A lot of these new imports are coming  
22 out of the Arabian Gulf and require, for shipping  
23 economics, to be carried in very large crude  
24 carriers, VLCCs. That puts a strain on the  
25 logistic system, in particular in the Ports of LA

1 and San Francisco, that these ports were never  
2 designed for, and these logistics are currently  
3 suboptimal, with lighting offshore and putting  
4 strain on the logistics system in general.

5 And to a certain extent, and even though  
6 that's minimal, these logistics facilities and  
7 this additional strain competes with the  
8 possibilities to import products.

9 On the right-hand side, you see over  
10 that same period, '96 through 2000, the imports of  
11 petroleum products. And what is clear is that the  
12 big increase is almost entirely for the account of  
13 foreign sources.

14 MS. BAKKER: Thomas, on that slide,  
15 that's the right-hand side, there's a really fast  
16 ramping up, even if, you know, you look at it in  
17 total, or even in the US product imports. Is  
18 there some market condition that led to our  
19 importing product in 1998?

20 MR. GIESKES: Yes, Susan. And we'll  
21 come back to that. 1998 was a more or less a  
22 disaster year for the California refiners. And so  
23 that was also the subject of the slide that Tony  
24 showed, with these very sharp price increases.  
25 And so in '99, refiners were very successful in

1        locating imports to backfill that lost capacity,  
2        in part, and it still caused substantial price  
3        spikes.

4                What we don't have yet, because these  
5        data are in part based on not just data from EIA  
6        and the CEC, but also on the import statistics,  
7        port statistics from the US Army Corps of  
8        Engineers, and the US Army Corps of Engineers  
9        publishes these data with half a year to a year's  
10       delay so we don't have the 2001 data yet. But  
11       what we know from foreign import statistics in  
12       2001 is that the increase from the foreign imports  
13       from 2000-2001 was about 20 percent. Again, sort  
14       of the underlying curve here, you get a very steep  
15       increase in '99, then it leveled off in 2000  
16       because the refiners had a better performance, and  
17       2001 is likely to be here again.

18               Thanks for the comment, Susan.

19               And the imports by origin and type.

20       What this graph on page 26 shows is that whereas  
21       in '96 there was still small exports in mainly  
22       some residual fuel, and those have disappeared as  
23       well, and California is now a net importer of all  
24       products.

25               And the imports of gasoline and gasoline

1 components, as shown in graph 26 -- or 27, is  
2 mainly MTBE. And that is going to pose a  
3 particular problem when MTBE will be phased out,  
4 sooner or later. And this has been the subject of  
5 much discussion in our previous workshop.

6 So overall, and this is page 28, how  
7 does gasoline flow in and out of California  
8 amongst states of the West Coast. And what 28 --  
9 and I won't go through all the numbers here in  
10 detail -- but what is very clear to see is that  
11 the main import center is the Los Angeles Basin.  
12 The Bay Area is actually currently still a net  
13 exporter, shipping gasoline to Portland, and  
14 shipping some gasoline down to LA.

15 And what is also shown, and this will be  
16 the subject of the workshop tomorrow, is the  
17 future pipeline connection into El Paso by  
18 Longhorn, and then the potential supplies coming  
19 in from the US Gulf Coast into Arizona, and  
20 potentially displacing volumes that are currently  
21 supplied into Arizona by the California refiners.

22 On to demand now. And demand growth is  
23 something that has been the subject of a separate  
24 recent study by the California Energy Commission.  
25 We borrowed heavily from those data. And there



1       are the usual growth drivers. I won't go through  
2       all the numbers here, we've been over this before  
3       in the previous workshop.

4               At that time it was pointed out to me  
5       why didn't you look at substitutes and replacement  
6       for gasoline, and those are all very good and  
7       well. In this case, and particularly with the  
8       MTBE phase-out looming within the next two or  
9       three years, most of these factors, such as  
10      substitution, alternative fuels, et cetera, do not  
11      come into play. And even fuel economy factors  
12      usually play out over periods of six or seven  
13      years, and you don't see much impact in three  
14      years.

15             So, with that, and I should also add  
16      that I'll move on to slide 30, which shows the  
17      historical and forecasted demand of gasoline in  
18      California. Our base case of 1.6 is a good fit  
19      with the sort of underlying average over the past  
20      20 years in the State of California. The most  
21      recent economic indicators show a stronger growth  
22      than the 1.6 percent, and especially with the  
23      economy likely to recover quickly, the growth is,  
24      I would say, more likely to be around the high end  
25      of the scenarios that we considered than around

1 the low end.

2 So we've looked at 1.6 percent as being  
3 the current CEC base case forecast. It looks,  
4 based on the last nine months, more likely to be  
5 around two percent, or even higher. The first  
6 nine months in 2001, prior to the September 11th  
7 incident, actually was an almost three percent  
8 growth. And we believe that the September 11th  
9 events have not impacted gasoline demand very  
10 much. There might have actually been some  
11 increase in driving because people are starting to  
12 drive short distances rather than take a plane.

13 Slide 31 shows the demand forecast  
14 overlaid on the production of gasoline and the  
15 various gasoline components in California, as a  
16 whole. And what you'll see is the red bars  
17 represent the MTBE use, and there is a small white  
18 bar that represents the imported blendstocks other  
19 than MTBE. And then the green bar is the end  
20 refinery production.

21 A phase-out, as currently foreseen, of  
22 MTBE by year end 2002, would then result in a gap  
23 of between 50 to 100,000 barrels per day,  
24 depending on what demand scenario is actually in  
25 play. And this gap, and we'll talk about the

1 numbers in more detail, is why we proposed in a  
2 separate workshop that the phase-out of MTBE  
3 should be delayed.

4 Here is the phase-out of MTBE in  
5 numbers. And this is making a split between  
6 northern California and southern California, on  
7 page 32. What you'll see here is that -- and  
8 once again, I won't go through all the numbers in  
9 detail -- is that very clearly, the phase-out of  
10 MTBE does not impact the north and south to an  
11 equal extent. We actually believe that the  
12 numbers that we have here might be -- for northern  
13 California, might be off by about 4,000 barrels a  
14 day, actual MTBE use is even lower. That makes it  
15 even more of a problem in southern California.

16 So how does this then play out, and this  
17 is the sort of same slide that we saw before, with  
18 the demand curve, and then the bars represent the  
19 production.

20 And this is a busy chart, and I  
21 apologize. But in the -- on the left-hand side,  
22 we see northern California, with the solid area in  
23 the background being the demand curve for the base  
24 case. And then on top of that is the demand of  
25 Oregon and northern Nevada that's still supplied

1 out of the Bay Area refining center.

2 And as seen in the previous slide,  
3 northern California really is not the problem.  
4 There might be a small shortfall, or they might  
5 stay balanced, but that is really not the issue.

6 If we look on the right-hand side to  
7 southern California, however, you see that there  
8 is a very substantial gap between the demand areas  
9 and the bars which represent production. And that  
10 indicates that the supplies by pipeline, and this  
11 is -- we called it the Longhorn Extension, but  
12 there might be other companies that would be  
13 involved in it, as well, Kinder Morgan is likely  
14 to look at that line from El Paso to Tucson and to  
15 Phoenix -- if that project does not materialize  
16 within the timeframe that we, and this is a fairly  
17 optimistic estimate, that we foresee, then it will  
18 be clear that this supply shortfall will be even  
19 more substantial.

20 And moving on now, and this will be  
21 discussed in much more detail tomorrow, but that  
22 supply shortfall, where is that going to come  
23 from. In previous studies, the CEC had assumed  
24 that that supply shortfall would be largely made  
25 up by imports of blendstocks, and particularly

1       alkalytes, C7 alkalytes from the US Gulf Coast.  
2       As it appears, and there have been very detailed  
3       studies to investigate that, there is no such  
4       thing as a separate stream of C7 alkalytes  
5       available in the US Gulf Coast. The US refiners,  
6       as a whole, and the US Gulf coast refiners, in  
7       particular, are running at capacity currently. So  
8       there is no big supply overhang ready to be  
9       shipped from the US Gulf Coast to California.

10               And even if there were, who would be  
11       available to ship it, and that's also the subject  
12       of a separate study tomorrow, but I'll quickly  
13       show, steal some of Drew Laughlin's thunder here.  
14       Even if the supplies were there, the shipping  
15       situation is such that with the phase-out of  
16       single hull tankers, and there are over 90, by  
17       2005, that really starts to bite, and a large  
18       segment of the US tanker fleet will be retired  
19       with very little new building on the horizon.

20               So as we look to the US Gulf Coast as a  
21       supply source, the current outlook is the product  
22       is not there, and the ships are not there. The  
23       product not being there is also a factor in the  
24       pipeline study that will be discussed tomorrow in  
25       more detail.

1                   And then, of course, you look at foreign  
2           imports, and -- as the next available replacement  
3           for a shortfall of gasoline in California. And we  
4           looked fairly extensively, talked to current  
5           producers of CARB Phase II gasoline grades,  
6           regular shippers and importers and traders, and  
7           our belief is that if you had to summarize it in  
8           one sentence, 50,000 barrels a day of suitable  
9           component imports, in addition to what's currently  
10          being shipped in, yes, it will probably be there.

11                   If the shortfall is 100,000 barrels a  
12          day, it is probably going to be very, very  
13          difficult and very, very tight.

14                   More important even than the question of  
15          the imports there, because I also think that in  
16          the worldwide refinery system, if the premiums of  
17          California gasoline over world market prices are  
18          sufficiently high, people will scramble and scrape  
19          and do whatever they can to make product available  
20          because it's so attractive, what it boils down to  
21          then is can we actually get these products in the  
22          market. And if we think back to that earlier  
23          slide that I called the electrocardiogram of the  
24          State of California's gasoline heartbeat, what is  
25          very significant is that at the height of those

1 price spikes, no material gets shipped. So even  
2 at price differentials of 40, 50 cents per gallon  
3 of California over world market prices, very  
4 little product actually moves away and gets  
5 actually put on the water. And the reason for  
6 that will be discussed in more detail.

7 Let's move on here. That screen is --  
8 technology sometimes works, and when it doesn't,  
9 it's a nuisance.

10 So California's gasoline's import  
11 routes, and we'll come back to that later as well,  
12 but it's interesting from several perspectives.  
13 One is the length in terms of days, the duration,  
14 and these are just pure shipping times. So if you  
15 look at, for instance, a shipment of blendstocks  
16 from the Arabian Gulf to California, 33 days.  
17 Finland, which is another remote destination, 30  
18 days. The closest, in our view, is Gulf Coast,  
19 and with the Panama Canal delays it might add plus  
20 or minus two days to the number. If it's really  
21 bad, I think at the worst, delays could be as high  
22 as a week or ten days.

23 But on average, it takes a while for  
24 product to get here. Not only that, most of these  
25 producers, foreign producers of California grade

1 materials, don't produce those materials on a  
2 continuous basis. So if a California supply  
3 disruption happens, you'd have to be extremely  
4 lucky for a cargo to be somewhere on the water  
5 already, and to be able to divert the cargo into  
6 California.

7 Most of the time, somebody will have to  
8 go out and then say well, let's -- they'll first  
9 want to wait and see a little bit better the price  
10 spike lasts, and if it does last then they'll say  
11 well, let's produce a batch of CARBOB, find a  
12 suitable ship, and get it on the water. So on top  
13 of these sort of five to six weeks of shipping  
14 time, you have to add one or two weeks of  
15 production time, and some time to do a deal and  
16 try to ship.

17 The other interesting thing to note here  
18 is how the shipping rates are very heavily  
19 impacted by the fact of a, say, the international  
20 vessel versus the US Flag Jones Act vessel. It is  
21 as expensive to ship a cargo from the US Gulf  
22 Coast as it is to ship it in from the AG. That's  
23 cartel.

24 So the barriers identified by this, that  
25 currently already make it very, very difficult to



1 bring products in to the California market despite  
2 these price spikes of 40 and 50 cents, really,  
3 really tremendous differentials that should see an  
4 armada of tankers coming our way, is first and  
5 foremost the lack of deepwater storage terminals,  
6 particularly in the LA Basin.

7 The fact that -- and this is not meant  
8 to be detrimental or insinuating in any way -- but  
9 that the capacity of those terminals is mostly  
10 controlled by the majors either directly owned or  
11 under a long-term lease, rented out to the major  
12 refiners, the current port policies in Long Beach  
13 and LA play a major role in this, as well.  
14 There's been a decrease in capacity of terminals,  
15 rather than an increase, and that is because  
16 container terminals take up more and more land.  
17 These mega-terminals of 500 acres each keep  
18 gobbling up container land, terminal land.

19 And in actual fact, the city officials  
20 in San Pedro and in LA are currently looking at  
21 the removal of terminals, rather than the  
22 addition.

23 Then there are initiatives such as the  
24 South Coast Air Quality Management District's Rule  
25 1178, which, I mean, all of this is intended to

1       create cleaner air, which is good, but it goes to  
2       the detriment of the infrastructure of the  
3       industry over the next seven years, and if it  
4       hadn't been for our gallant efforts, it might have  
5       been 40 years. But over the next seven years,  
6       some ten percent of all LA gasoline type tankage  
7       will be out of service for doming of the roofs and  
8       other modifications.

9               So there is significant capacity loss,  
10       with more threatened by non-renewal of leases, and  
11       new capacity certainly faces a very difficult  
12       permitting environment.

13              So there are some commercial barriers,  
14       as well, surrounding the addition of new tankage,  
15       and the same argument is true for additions of new  
16       capacity or additions of new ships, is that any of  
17       those major capital investments need to be backed  
18       by a long-term commitment. And if you're a  
19       foreign refiner or if you're a local California  
20       storage company, you cannot do a multi-million  
21       dollar investment without a bankable contract  
22       backed by a creditworthy company. The trading  
23       companies typically are not in a position to  
24       provide these sort of guarantees, and that is one  
25       of the major obstacles to addition of new tankage.

1                   So with that, let me summarize the  
2           supply and demand situation.  California  
3           refineries are running flat out, the opportunities  
4           to increase capacity diminish, the MTBE phase-out  
5           will certainly not make this situation easier.  
6           The shortfalls will therefore have to be made up,  
7           at least in part, by imports.  But the  
8           infrastructure is currently already severely  
9           constrained.  That about sums it up.

10                   Why is this important for the gasoline  
11           reserve?  All these factors contribute to the  
12           increasing instability of the California market,  
13           and towards the justification of a radically  
14           different solution.

15                   So with that, I'm going to turn it over  
16           to Gregg Haggquist, who will tell us something  
17           about other reserves.

18                   MS. BAKKER:  Before you go, Thomas, one  
19           of the things on your slide, if you go back to --  
20           I guess slide 33 is probably the best one, where  
21           it has the two graphs.  It strikes me, from  
22           seeing, looking at the first 2000 and 2001,  
23           southern California in particular, that really  
24           without regard to the MTBE phase-out there is a  
25           challenge facing southern California.

1 MR. GIESKES: There is. I mean --

2 MS. BAKKER: Which is consistent with  
3 your first summary point, we're at 95 percent of  
4 maximum today.

5 MR. GIESKES: Yes, Susan, that's  
6 absolutely right. And I think our whole approach,  
7 for instance, to the MTBE phase-out would've been  
8 totally different if California's market currently  
9 had a free flowing supply of imports, and you  
10 didn't have that spikiness already, extreme  
11 volatility in the market. That extreme volatility  
12 is a clear sign of a not fully functioning supply  
13 and demand mechanism. You should not have to  
14 curtail demand in order to meet supply and demand  
15 match-up. And that is indeed a cause of great  
16 concern.

17 So our starting point currently is  
18 already not very healthy, and we're going to do --  
19 I mean, we're going to face a lot of additional  
20 demand, and we're going to phase-out MTBE. And  
21 that will make it worse.

22 MS. BAKKER: Thank you.

23 MR. HAGGQUIST: Thank you, Thomas.

24 Thank you, Commissioner, ladies and  
25 gentlemen. I'm Gregg Haggquist. I've been in

1       this oil industry for about 30 years. I spent  
2       a -- for the first decade, with the majors, with  
3       Texaco and BP North America Trading. I understand  
4       that side of the market. The last 15 to 16 years  
5       I was the founder and the President, Chief  
6       Operating Officer of Miecoco, one of the more active  
7       domestic and international oil trading companies,  
8       concentrating in the Pacific Rim and east of the  
9       Rockies, and the west coast.

10               With that, the first thing that strikes  
11       me that I'd like to mention here is that in taking  
12       this assignment, in the context of 30 years in the  
13       business, I have never seen this done before, and  
14       I don't know if anyone in the room has before.  
15       That is, an overview of the situation in the State  
16       of California.

17               And I started reflecting on that, what  
18       does that mean, why is that. And one reason, I  
19       believe, is structural. That, you know, the WSPA  
20       members, the large refiners, you know, they're  
21       limited in what they can say to each other at  
22       gatherings and meetings. They really cannot sit  
23       down and have this -- compare notes on  
24       infrastructure, market share, and all of that.  
25       That's against the law, frankly. And on the

1 government side, on the government side, the  
2 agencies are aligned in a certain way that the  
3 local decisions are made without a direct channel  
4 or oversight.

5 For example, 1178, that Thomas  
6 mentioned, that's the rule that requires the  
7 removal, the installation of domes on tanks, and  
8 would've taken 20 percent or more of the tankage  
9 out of service in southern California, without  
10 oversight by the Energy Commission, on the basis  
11 of decisions that were made in southern California  
12 by the -- it doesn't matter who made them. There  
13 is no channel to have this sort of comprehensive  
14 look at the market.

15 Okay. So with that in mind, what I  
16 thought would be most useful would be to place our  
17 study in a context, a context means a geographical  
18 context, a historical context, and a qualitative  
19 context.

20 Let's see here. We skipped two here,  
21 didn't we. Just have to touch this easy. Right?  
22 There we go. Is that right?

23 In the historical context, we're  
24 starting here with the United States, but there's  
25 a lot of information that's not in studies you

1       have in your hands. I call it on the cutting room  
2       floor. And the finished DVD will give you a lot  
3       more depth to the studies that you have in your  
4       hand, including the history and the specifics of  
5       other strategic reserves.

6               It started back in -- in the United  
7       States, the first mention was back in 1944, by the  
8       Secretary of the Interior, who pressured the  
9       President to try to build a crude reserve. And  
10      then in '52, Truman, with his Department of the  
11      Interior, tried to push a reserve through. And  
12      after the Suez Crisis in '56, Eisenhower tried to  
13      get a reserve put in place. But it never really  
14      happened until the energy crunch in '74, when the  
15      international countries, 28 signatories, responded  
16      to there first oil crisis. And we're on slide 41,  
17      for people listening in.

18             And we all know what that was all about.  
19      In the United States, under President Ford, we  
20      finally got to the point where we passed the  
21      Energy Policy and Conservation Act, that both  
22      emphasized conservation and the possibility of  
23      strategic reserve. And the strategic reserve  
24      finally came in place in '77. We all know about  
25      that, that was -- that is in the Gulf Coast, in

1 salt domes. And the salt domes, of course, are  
2 ten percent of the cost of an above-ground storage  
3 tank, and they are highly secure, from a military  
4 point of view. So from those points of view, that  
5 made some sense.

6 But we draw attention to these sort of  
7 issues only for contrast and context, and how  
8 these apply or don't apply to California's  
9 situation.

10 The next most similar situation was the  
11 Regional Petroleum Product Reserve established  
12 under the provisions of the EPCA, the Energy  
13 Policy and Conservation Act. The Regional  
14 Petroleum Product Reserve, better known as, in  
15 today's terms, the New York Heating Oil Reserve,  
16 and that was created as part of the national  
17 reserve, using the crude oil stored in the  
18 national reserve as a swap basis to get around the  
19 funding shortfall, frankly.

20 That may be significant to us, if we go  
21 forward with a reserve in California. What is  
22 significant, what is not significant. That may  
23 become significant.

24 But with respect to that heating oil  
25 reserve on the east coast, we, in the spirit of



1 contrast and comparison, let's just take a look at  
2 this. The demand in New York Harbor is 700,000  
3 barrels a day during the winter, on the average,  
4 for heating oil. And in California, it's a  
5 million barrels a day year-round. The effective  
6 days inventory on the east coast is 70 days during  
7 the winter; eight days during regular demand  
8 season on the west coast, in California. In  
9 California.

10 Obviously, heating oil, especially, has  
11 created the NYMEX as a fungible commodity. We, in  
12 California, have multiple grades of gasoline non-  
13 fungible. We call them boutique fuels, even  
14 though we don't like that name. There's no  
15 blending restrictions on the east coast. The very  
16 robust blending, thereby being a market  
17 equalization activity in the east coast, and  
18 there's no blending here. We have the Unocal  
19 patent for California gasoline inhibiting us.

20 There are a hundred-plus transactions a  
21 day on the NYMEX, and in physical over the counter  
22 markets back east. Out here, 20 trades a day,  
23 probably, if you capture the trades done between  
24 the major refiners. Out in the independent  
25 market, brokers tell us, in the markets that are

1 reported by OPIS and Plattz, those markets, five,  
2 maybe ten a day is all you're going to see.

3 So, and as a broad and deep futures  
4 market, the NYMEX, the whole world uses out here,  
5 there's no forward market. The pricing is  
6 transparent back east, and it's opaque out here,  
7 to say the least. Who knows what the price is?  
8 Talk to five brokers, you get five numbers.

9 Demand, seasonal only, back east. Year-  
10 round, out here. And shipping time is one to two  
11 weeks back east, and only five to eight weeks out  
12 here. I mean, it's five to eight weeks out here.  
13 Now, that's significant again, in the terms of  
14 context. The heating oil reserve that has been  
15 established did take into account the ten-day  
16 voyage, they said, maximum, to re-supply New York  
17 Harbor in the event of a problem with the Colonial  
18 Pipeline, or other supply availabilities. So they  
19 picked a ten-day supply for their inventory.  
20 Their strategic reserve inventory.

21 They have, there are 68 terminals in 26  
22 ports back east, and there are only 16 terminals  
23 here in two ports. Most of them, as Thomas  
24 mentioned, in the hands of the refiners. There's  
25 nothing wrong with that, but it's just structural

1 fact. We're talking about structure here.

2 And the population, percent of the  
3 population that is affected back east is about 11  
4 percent. A big part of it is in Maine. And out  
5 here, everybody drives. It's something we can't  
6 get rid of. We can't stop driving.

7 MS. BAKKER: Gregg, before you go  
8 forward, I think you said that under the category  
9 of market liquidity, that there were 100-plus per  
10 day in the northeast. And the slide says a  
11 thousand-plus, per day.

12 MR. HAGGQUIST: Oh, that's correct. I  
13 made a mistake.

14 MS. BAKKER: And is the slide a typo, or  
15 is your --

16 MR. HAGGQUIST: It is a thousand. No,  
17 it's my error.

18 MS. BAKKER: Okay.

19 MR. HAGGQUIST: It's my error.

20 MS. BAKKER: Thank you. I'm sorry to be  
21 nit-picky, but --

22 MR. HAGGQUIST: That's good. No, that's  
23 good, because once again, back east is the NYMEX,  
24 and it's used as a hedging mechanism and a  
25 physical delivery mechanism for the whole world.

1 Good point. Thank you.

2 So in this contextual spirit, the  
3 strategic reserves in these other countries have  
4 been put in place for national security reasons.  
5 I won't go into a lot of depth, but one thing  
6 that's in historical play of these strategic  
7 reserves, and as a person who's traded in those  
8 markets, we see stagnant ideas. We see stagnant  
9 inventories. We see bugs growing. We see markets  
10 convulsing. And, you know, they're stagnant ideas  
11 because they just put the product in a tank and it  
12 sits there until the bugs grow on it. That has  
13 literally happened. Or, until they start to mix  
14 cracked product with uncracked product and create  
15 a quality problem, and dump it on the market,  
16 convulsing the market. These are the kind of  
17 things we want to avoid, if we ever put a  
18 strategic reserve in in California.

19 The only strategic reserve put in place  
20 to mitigate price, rather than for security  
21 issues, was the Heating Oil Reserve in New York,  
22 and there was one experiment in Massachusetts that  
23 was quite successful. We won't go into in detail  
24 here, but the Massachusetts one was more in the  
25 spirit that we're talking about, but we won't go

1       into it here. We don't have time for that.

2               The east coast and all of the other  
3       reserves are event triggered, a national  
4       catastrophe or an event of war, or an explosion.  
5       Whereas the mechanism that we're going to be  
6       talking about today is less reliant upon these  
7       sort of events.

8               We did learn from these contrasts that  
9       the strategic reserves can, in fact, play an  
10      important role in opening up markets. Japan and  
11      Korea, ironically, are examples of this. You  
12      know, it's strange to say that, but Japan  
13      historically, people in this room have traded  
14      petroleum in Japan, will remember that old Japan,  
15      and old Japan, I mean prior to 1996 and '97, was  
16      non-accessible. You could never bring gasoline  
17      into Japan. Forget it, you go to jail.

18              But their liberation of the market, they  
19      tried to open the market, and they did that by  
20      allowing importation of gasoline by non-refiners,  
21      as long as the non-refiner parties were able to  
22      demonstrate that they in fact had matching volumes  
23      in reserve in the country. This was sort of a  
24      balancing situation. That was their solution.

25              The point is that by virtue of them

1 allowing gasoline to come into the island of  
2 Japan, and we're talking about the island of  
3 California, since that time we have seen refinery  
4 rationalization, we have seen consumer prices come  
5 back more in line with regional prices, and we  
6 have seen a very robust forward and futures market  
7 open in Tokyo, that no one ever thought would  
8 happen. And it all comes back to physical  
9 capability, and that's all we're talking about  
10 here today. Physical capability to physically  
11 bring in a physical cargo and stick it in a  
12 physical tank, and therefore, by doing that, the  
13 market will create its own momentums.

14 In order for that to happen, they must  
15 be -- the strategic reserves must be fully  
16 integrated, with continuous throughput for quality  
17 reasons, as it tells us in slide 43. And our plan  
18 does allow for that. We don't want bugs to grow,  
19 we do not want markets to convulse.

20 How can we prevent markets from  
21 convulsing, if we ever do build a strategic  
22 reserve here? And that question is an open  
23 question for everyone in the room and everyone  
24 listening, everyone interested. We categorized  
25 the three ways, looked at three ways to trigger a

1       reserve, if we put one in place.

2               One is by event. And the problem we  
3       wrestled with on that consideration is that what  
4       is the event? How serious does it need to be, and  
5       who can play? So we're saying here, on this  
6       slide, even when conditions and authorities are  
7       well defined, you can still create market  
8       uncertainty. We were sitting -- we were sitting  
9       here in CEC several months ago, during one of  
10      those events that happened in a refinery out here,  
11      and the market had in fact run up 18 cents a  
12      gallon that particular day, on the back of that  
13      event.

14             Well, would that be the kind of event  
15      that would trigger the reserve? We can have a  
16      long debate on that one, when you people in the  
17      room take the floor, and the people listening  
18      write in.

19             So we think that these event triggered  
20      releases are probably better for these large  
21      strategic reserves. If we were thinking about  
22      9/11 issues here, rather than price and market,  
23      you know, balance here, then we might think about  
24      event triggered release mechanisms.

25             Now, price triggered release mechanisms

1       also carry their own complexities. For example,  
2       the price mechanism that governs the heating oil  
3       reserve in New York has a very detailed definition  
4       of the price mechanism, a 60 percent increase over  
5       the five-year rolling average of the heating oil  
6       contract in New York Harbor, which triggers what?  
7       Well, that triggers an oversight by the Secretary  
8       of Energy, which in turn triggers a discussion  
9       with the President of the United States, which in  
10      turn triggers a decision or a non-decision. We,  
11      in California, we recommend that we don't follow  
12      that kind of sequence of uncertainties.

13               So price triggered, we think is also  
14      difficult, particularly if the price trigger means  
15      that if we decide on a price trigger, that means  
16      we're going to sell barrels from the strategic  
17      reserve, dump barrels on the market, kill the  
18      market, suppress the market, if that's what it  
19      means. We don't want it to mean that, we don't  
20      intend it, we don't think that's a good idea.

21               So if we do come back to a price  
22      triggered mechanism, in any event, we always will  
23      be pushing for a trade of the strategic reserve  
24      barrels, a time swap. Any barrel that leaves the  
25      reserve must be replaced. Any book that you



1       borrow from the public library, you need to bring  
2       it back. The public library is not in competition  
3       with Barnes and Noble. And the strategic reserve  
4       is not in competition with the refiners.

5               So we think that the best way is some  
6       system of continuous access to the strategic  
7       reserve, when we put it in place. Any qualified  
8       party can play. How do you qualify? We've gone  
9       through various iterations of who they might be.  
10       Some of our -- some of the stakeholders suggested  
11       only refiners should be allowed to play. That has  
12       its own difficulties we can discuss when it's open  
13       forum here.

14              Others said that anyone could play, it's  
15       a democracy. Well, that also has its own  
16       difficulties. Obviously, you'd have to be  
17       financially qualified. So you have to be  
18       financially qualified, and you have to be able to  
19       perform.

20              But once you establish who can play,  
21       then we're thinking we're only going to have a  
22       time swap all the time in the strategic reserve,  
23       and we will govern this very strictly on the  
24       operational side. We believe that by having  
25       product taken from the strategic reserve and put

1 back, taken and put back, this activity will  
2 stimulate the private sector to do what it always  
3 does best, and the government's role is not even  
4 there. The invisible hand of the government is,  
5 in fact, the invisible hand of the government.

6 In order for this dream, or vision, to  
7 take place, we have to think in concrete terms or  
8 physical terms. Where does it have to be, and how  
9 big does it have to be. The Assembly bill that  
10 put us here in this study suggests that a two week  
11 supply of the largest refinery being taken out  
12 would be the volume that we want to put into this  
13 reserve. And we'll need a separate north and a  
14 south reserve, based upon some pro rated analysis  
15 of the problems in the north and in the south.  
16 We're suggesting less than a million barrels in  
17 the north, maybe one and a half million barrels in  
18 the south, in the strategic reserve.

19 And, of course, the logistics  
20 requirement would be -- must be integrated in the  
21 infrastructure of the Bay Area and the LA Basin.  
22 And we've thought of everything. We talked to  
23 everybody. We even talked to Mexico, you know.  
24 Why not build it in Baja. Well, once again, if  
25 you're -- September 11th and you're worried about

1 a disaster, maybe that's enough. But this, we  
2 believe, should be nestled into the heart of the  
3 industry in order that it can, by just being there  
4 and being used, will put us in connection with the  
5 rest of the world, which we are not, right now.  
6 We're an island.

7 We need to be connected to the pipeline  
8 system. We need deepwater access. And the  
9 tankage must be drained dry and suitable for  
10 multiple grades and components. And blending  
11 capacity, that's an open question, because we are  
12 proposing that private sector tanks be erected  
13 right beside the strategic reserve, or connected  
14 to the strategic reserve. You know, if there's  
15 ever any blending it'll be taking care of the  
16 private sector, not by the strategic reserve.

17 On the commercial side, we cannot take  
18 any tankage out of service. As Thomas has pointed  
19 out, there's a shortage of tank space in  
20 California. So a strategic reserve is not going  
21 to occupy existing tankage. On the east coast it  
22 was a different story. The heating oil reserve  
23 put in place by the federal government did, in  
24 fact, occupy tankage owned by the -- and still is  
25 there, in the private sector, commingled together

1 in three different terminals.

2 The reserve must be accessible to all  
3 parties, as we say, qualified parties. We don't  
4 want to have, you know, the Bank of Switzerland,  
5 even though they're financially qualified, bidding  
6 on -- trying to participate here, not knowing how  
7 to ship a tender or unload a boat. So you need  
8 qualified traders, importers, refiners,  
9 independent marketers, and the release mechanism  
10 must be clearly defined and designed in such a way  
11 that imports will be helped, rather than hampered.

12 So, where are we here.

13 MR. HACKETT: My turn.

14 MR. HAGGQUIST: Your turn. Come on back  
15 up here, Dave.

16 MR. HACKETT: Thanks, Gregg. For those  
17 of you out there, we are now on the agenda page  
18 number 47, moving to -- and we're going to talk  
19 about the inventories here in California.

20 All right. Moving on to page 48. Dr.  
21 Finizza put together this view of relative  
22 inventories for us today. And where we're looking  
23 at days of supply, that's essentially consumption  
24 divided by stocks. And so this gives you a  
25 relative picture of the capacity of the industry

1 outside of California to hold gasoline, versus  
2 California -- or, actually, PADD V, I'm sorry. So  
3 the US data are PADDs I to IV, which is the east  
4 coast, the midwest, the Gulf Coast, and the Rocky  
5 Mountains, where PADD V is Washington, Oregon, and  
6 California.

7 MR. GIESKES: Actually, the US as a  
8 whole.

9 MR. HACKETT: It is the US as a whole.

10 MR. GIESKES: So the numbers for the US,  
11 the rest of it is even higher.

12 MR. HACKETT: Oh, okay. Thank you,  
13 Thomas. Thomas, for those of you out there that  
14 couldn't hear it, I -- Thomas corrected me. The  
15 US data that you see here on slide 48 include the  
16 PADD V inventories. In fact, if you back PADD V  
17 out, that US line would be higher than you see on  
18 this graph. And at least in the scale that PADD V  
19 day supply are, you know, essentially flat.

20 And so the message here is the gasoline  
21 stocks in the west coast are lower than the rest  
22 of the country.

23 Turning to slide 49. What you see here  
24 is a representation of weekly California refinery  
25 inventories. What we discovered when we did our

1       analysis is that the federal government collects  
2       inventory data at the Petroleum Administration  
3       Defense District level, the PADD level, which, of  
4       course, is Washington, Oregon, California, and  
5       Nevada, Arizona, Alaska and Hawaii. And so it's  
6       difficult to get California only data. The data  
7       that the California Energy Commission collects are  
8       primarily refinery inventory. So there's a bit of  
9       a discrepancy between those, and we've worked on  
10      some resolution you'll see in a moment.

11               But the message in this slide is that  
12      the inventories vary in range of a band that's  
13      about eight million barrels. And given that  
14      demand in California is roughly a million barrels  
15      a day, then the total normal working capacity of  
16      these tanks is about eight million barrels.

17               One of the questions that we had for the  
18      inventory stakeholders, that is to say, primarily  
19      refiners, but other stakeholders, as well, is what  
20      about this issue of just in time inventory  
21      management. And universally, they said, look, we  
22      don't manage inventories just in time. We manage  
23      inventories, but sometimes we need plenty of it,  
24      and sometimes we don't need a lot. And other  
25      responses were, you know, inventory is something

1       that's the result, the results after you're done  
2       with production and demand. So we saw no -- none  
3       of this, you know, just in time inventory  
4       management issues.

5               We also asked stakeholders if they would  
6       be willing to increase inventories if they're  
7       compensated for that. That is to say, perhaps the  
8       state would provide some kind of compensation,  
9       time, value, money, or whatever, to holding higher  
10      inventories. And across the board, the answer  
11      that we got was we have to manage our inventories  
12      the way we have to manage them, and even if you  
13      pay us we don't think that we can guarantee that  
14      we could come up with higher gasoline inventories.

15             All right. So now I'm at 50, and I hope  
16      that's the next one, given the way this thing is  
17      flipping around.

18             This particular layer cake view of  
19      inventory we put up just to sort of demonstrate  
20      how the inventory has changed over time. And what  
21      you see in the lower solid blue area, for those of  
22      you that can see it in color, are blendstock  
23      inventories. In general, there's been some  
24      increase in blendstock inventories as the  
25      requirements for the cleaner burning fuels have

1       increased. But one of the issues, certainly, that  
2       you see with blendstocks is that it takes more  
3       tanks. Each one of those blendstocks, alkalyte,  
4       reformate, heavy FCC gasoline, light FCC gasoline,  
5       light, straight, or naphtha, and the like, there's  
6       this whole laundry list of things, needs its own  
7       tank in order for the refiner to be able to test  
8       the qualities of all of those materials and then  
9       to accurately calculate the very tight  
10      specifications required in order to blend gasoline  
11      in California.

12               The sort of red hatched area here is  
13      described as other finished, that's primarily  
14      conventional gasoline. And you can see that the  
15      volume of that inventory has dropped as  
16      reformulated gasoline has come in. The sort of  
17      orange areas are oxygenated gasoline. Those were  
18      wintertime gasoline, in general, that you see that  
19      the oxygenated gasoline has gone out of the  
20      market, and then completely replaced by RFG.

21               Now, we did look at capacity  
22      reconciliation. This sort of comes back to in the  
23      trading world for PADD V, for west coast gasoline,  
24      it's well known that sort of the middle of the  
25      tank is about 30 million barrels. That's more



1       than, say, the 12 to 14 million that we showed for  
2       California. So the ranges here, once inventory  
3       gets -- approaches 32 million, then the tanks are  
4       full. You tend to see that as a reduction in the  
5       spot market price.

6               When you got down below 29 or 28  
7       million, then that tends to be a cause for  
8       concern. Inventory is getting low, and then the  
9       bottom of the tank seems to be about 25 or 26  
10      million, where the market is very unstable because  
11      there's a shortfall in inventory.

12             What we did here was try to look at  
13      total California capacity, back out the typically  
14      unavailable portion of that capacity, because of  
15      tank bottoms and the tank tops and tank  
16      maintenance, and the like, and then calculate an  
17      effective capacity. Our expectation is that this  
18      market tends to run half full, and -- of about,  
19      say, 22 million, and when we look at California as  
20      it's proportioned to PADD V, roughly 70 to 75  
21      percent, then we think that the average for  
22      California ought to be about 21.

23             So that, what that says is there's more  
24      inventory in the tanks out there than just the  
25      stuff we showed you for the refinery, and we did a

1       -- and then we use that same logic, applied to the  
2       refineries, where we expected an average inventory  
3       of about 11, and we're seeing about 12 million  
4       barrels.

5               Just turn to the inventory planning for  
6       a moment. The refinery inventories are determined  
7       by operational requirements, and the message that  
8       we got loud and clear from the stakeholders. The  
9       issue of the number of tanks, that is to say the  
10      bottoms of tanks, is almost as important as the  
11      total capacity. Many of these tanks will go into  
12      a particular service, and because there's some  
13      unavailable inventory in the bottom of the tank,  
14      that if you wanted to change service on that tank,  
15      you wanted to go from, say, gasoline to jet fuel,  
16      then there is a fairly extensive clean-up process  
17      that's associated with getting that unavailable  
18      inventory out of the tank.

19             There are a few tanks out there, we're  
20      starting to see them, that are called drain dry,  
21      where the tank is built to accommodate the issue  
22      of being able to change the service fairly  
23      quickly. But there are not many of those.

24             We see the refiners don't have many  
25      options for strategic inventory considerations.

1       It's our opinion that they -- this sort of comes  
2       back to our work that we did for the Energy  
3       Commission around the Rule 1178 work. We could  
4       see the throughput in the tanks in the refineries  
5       in southern California. And let me tell you,  
6       there's nobody loafing down there. Those tanks  
7       are moving up and down fast. There's not a lot of  
8       capacity to build additional inventory, other than  
9       to some extent in the -- in the commercial  
10      terminals that are down there, but that seemed to  
11      be somewhat limited.

12               Now, the average cycle time on this  
13      inventory capacity is roughly a week, and that  
14      corresponds with Kinder Morgan's cycle time, where  
15      over a week everything gets pumped out, and then  
16      they start again on the next week, and go at it.

17               And as I said, commercial terminals do  
18      offer some capacity for strategic inventories, but  
19      those are limited. And then there are  
20      considerations at the port terminals, not only for  
21      cargo size, but also it comes back to this issue  
22      of tank bottoms.

23               So there are very limited, this says no  
24      options to increase inventories, but essentially,  
25      very limited opportunities to increase inventories

1 in those markets.

2 Okay. Now, turning to 53, we're going  
3 to look at commercial terminal inventories.  
4 Again, you know, sort of the focus here is that  
5 there -- California, from a oil industry  
6 infrastructure perspective, downstreams to these  
7 two markets, the Bay, San Francisco Bay Area, and  
8 the Los Angeles Basin. And so what we're showing  
9 here are those data in the LA Basin. Refiners  
10 have brought terminals on to commercial service,  
11 but our observation is that as demand has grown  
12 here in California, and as imports have picked up  
13 and these terminals are starting to, or are at the  
14 point where they appear to be running at high  
15 capacity utilization.

16 We also see that a majority of the  
17 capacity down there is leased out on long-term  
18 contracts. And there's very little capacity  
19 available on a short-term basis.

20 Okay. Now I'm on 54. California  
21 inventories, the impact of MTBE replacement. The  
22 MTBE phase-out will free up tank capacity at  
23 import terminals. But there are some issues  
24 around this.

25 The first is that MTBE is a fully

1 fungible single component that's landed in a few  
2 tanks with high throughput. A way to think about  
3 that is the tanker comes in, drops the MTBE off  
4 either directly at a refinery that's tied to the  
5 water, or at a terminal that the refiner owns or  
6 leases on the water, and then the material's  
7 pumped up to the refinery where it's blended into  
8 the gasoline.

9 We see that the replacement volume for  
10 the MTBE will be a wide range of imported  
11 components. It would be alkalytes of different  
12 flavors, potentially iso-octane, raffinate,  
13 CARB -- Phase III CARBOB. CARBOB, of course, is  
14 California Reformulated Blendstock for Oxygenate  
15 Blending, and the like. And so many of those will  
16 need segregated storage, and putting those, this  
17 plethora of blendstocks through what had been a  
18 dedicated system won't be necessarily smooth.

19 There will be waterborne ethanol, so  
20 that'll create an additional segregation beyond  
21 the gasoline, the CARBOB and the components that  
22 come in. And then, the MTBE de minimis  
23 requirements and other specs, stringent  
24 specifications can lead to potential of problems  
25 and additional storage to solve those blending

1 problems.

2 And then, finally, we're told that  
3 blending around the Uno-Cal patent will become  
4 more difficult, although we've heard recently that  
5 the patent office has a bind on the Uno-Cal  
6 patent, so some of you have a better, more current  
7 knowledge of what's going on with that, and we'd  
8 appreciate hearing about that a bit later.

9 So it's our opinion that the MTBE  
10 infrastructure is not capable of handling the  
11 California import shortfall.

12 As far as the commercial tank market is  
13 concerned, how do you know that Stillwater is  
14 right when Stillwater says this market's tight?  
15 Well, certainly a good way to do that is go look  
16 at the market, and not only look at it today, but  
17 go back in time and look at it. What we've seen  
18 is a dramatic increase in tank rental rates. And  
19 so the reason that tank -- service providers get  
20 more money for the tanks is because there's either  
21 more demand, or less supply.

22 Okay. Well, on the less supply side,  
23 we've seen a lot -- we've seen, I think we  
24 calculated some two million barrels of storage in  
25 the LA Basin go out of service over the last few

1 years. We see that existing terminal operators  
2 are under increased pressure to move away from the  
3 harbor. And this is both on, frankly, on the Port  
4 of Los Angeles and Port of Long Beach side.

5 We see that there are applications for  
6 increased capacity that are not being processed by  
7 the ports. One terminal operator we know of had  
8 an application in for a relatively small expansion  
9 back in June, and it's still sitting on some  
10 administrator's desk, waiting for the proper  
11 political climate before they can take forward an  
12 expansion and bump up the terminal operations.

13 There are security concerns have come  
14 up, and the like. And then there is the issue of  
15 what does a commercial operator need in order to  
16 build new tanks. And some way or other, they need  
17 the commitment. It's sort of difficult to go to  
18 the bank and say I need \$100 million to build a  
19 bunch of tanks, but I'm not really sure if I'm  
20 going to have customers. And so getting  
21 commitments from customers at this point has been  
22 somewhat difficult.

23 Okay. And, you know, in our view, the  
24 trend is that, you know, continued decrease in  
25 capacity in the Ports of Los Angeles and Long

1 Beach.

2 Okay. That finishes that section.

3 We'll go into markets next.

4 MS. BAKKER: Dave, could I ask you one  
5 question on your slide 53. I'm coming to the  
6 conclusion that I'm misunderstanding the labels on  
7 this table, because I was thinking that, let's say  
8 you say Column A, B, C, D, that column C plus D  
9 equals A -- B, and that clearly that's not the  
10 case. So, because none of the numbers add up.  
11 And so can you distinguish these three numerical  
12 columns for me?

13 MR. GIESKES: Yeah, I guess I can handle  
14 it. The -- within the total tank capacity there's  
15 a certain amount of variation of what you can put  
16 in there. So total tank capacity has in there  
17 also some black oil and things, and then within  
18 what the tanks are clean product capable, within  
19 that there is a gasoline and components. So  
20 what's missing from the total is that column with,  
21 say, black oil tankage, and some other --

22 MS. BAKKER: Okay. So, like gasoline  
23 and components is a subset of clean tank --

24 MR. GIESKES: Subset, but the -- yeah.

25 MS. BAKKER: -- is that a subset of



1 total?

2 MR. GIESKES: Yeah.

3 MS. BAKKER: Okay. Thank you.

4 MR. GIESKES: At any point in time,  
5 those numbers can change. So this is almost like  
6 a snapshot of the market at any one point in time.

7 MS. BAKKER: Oh.

8 MR. HACKETT: And Gregg now will talk  
9 about markets.

10 MR. HAGGQUIST: Thank you, David.

11 This is perhaps one of the most  
12 sensitive areas of discussion. We certainly don't  
13 encourage the government to get involved in the  
14 markets in California, and I'm sure no one in this  
15 room or listening wants that to happen. However,  
16 we tried to look at structure, and what the  
17 strategic reserve might mean. We're not going to  
18 lecture you on, you know, the marketing structure  
19 here, just a brief review so we recognize how it  
20 works now.

21 We're on page 57, for those listening.  
22 The California spot market is illiquid, there's  
23 not that many deals done, as we said earlier. And  
24 yet, that illiquid marginal market, the spot  
25 market, tends to set the price, it does set the

1 price for the entire unbranded sector of the  
2 market every day. And what does it take to push  
3 that market up or down, or down.

4 Based on our 50-some odd stakeholder  
5 interviews and our experience in the market,  
6 25,000 barrels, 50,000 barrels deals reported can  
7 set the market at that new level. And if you go  
8 up another nickel, go up another dime, 15 cents,  
9 20 cents, if we get up to 20 cents a jump can  
10 happen on just a few deals. Just a few deals.

11 And there's no real transparency in the  
12 forward market, so you really don't know what the  
13 price is next month in this market with any degree  
14 of confidence. A thinly traded forward market  
15 does exist.

16 Now, how does this affect the retail and  
17 the unbranded sector of the market and the branded  
18 sector of the market. Once again, this is not  
19 going to be an exhaustive discussion of these  
20 areas, but common sense tells us that we know that  
21 the unbranded sector has to buy at the rack, on  
22 the rack daily price, and that price is set by the  
23 spot market. So if a deal is done for 25,000  
24 barrels it jumps that market up, the whole market  
25 jumps up 25 cents, I mean five cents a gallon, and

1       that's the new price. And that is passed on to  
2       the unbranded sector, and the unbranded retailer,  
3       independent retailer, immediately.

4               The branded sector, of course, cushions  
5       the market from those media's price spike to some  
6       degree, but as a later analysis, I think Tony will  
7       come back up here and show us that there is a  
8       connection between the unbranded -- not the  
9       unbranded, the spot, the spot price and the  
10      branded over time. There's a lag factor.

11             Our concern has been, in connection with  
12      the strategic fuel reserve, is its effect on the  
13      spot market, and the smoothing out, somehow taking  
14      the tops off of this extreme spikiness in this  
15      market here, because the pricing here is not  
16      transparent. The last deal done sets the entire  
17      market, and that's very similar to what was going  
18      on in electricity last year during that  
19      catastrophe we had, where the last megawatt or  
20      last kilowatt sold in the market set the entire  
21      market. And this may not be too good.

22             The unbranded rack buyers get inched  
23      between the spot and the retail on the upswing.  
24      It's not, you know, we're not here to judge that.  
25      We're just here to point to that, and to ask

1       ourselves, from a physical, almost -- I call it  
2       plumbing, you know, think like a plumber. If we  
3       bring gasoline into a strategic reserve and it can  
4       get into this market from a global arbitrage of  
5       that commodity, as I described Japan has done,  
6       well, maybe that will have some moderating effect  
7       on this spikiness, and maybe on the unbranded  
8       sector.

9                Although, let me emphasize, we're not  
10       favoring one sector or another in this study.  
11       We're just looking at this as objectively as  
12       possible.

13               We do have a little chart here on page  
14       58 that shows the relationship between the branded  
15       retail and the unbranded retail and the spot  
16       price. You can see this clearly is a correlation.  
17       This is our high level map, and graph, so when you  
18       see the ones that Tony has you'll see how this  
19       plays out and more closely analytically.

20               So the independent markets get hit, and  
21       the downswing for the independents, to be fair,  
22       when the market drops, they have a chance to  
23       recoup whatever they lost on the upswing. So  
24       we're not saying this is fair or unfair. We're  
25       just saying it's a reality, and we're looking at

1       it from the point of view of a plumber looking at  
2       a system.

3               Okay. And here's where Tony will come  
4       in. Tony Finizza, you want to step back up?

5               MR. FINIZZA: Thanks, Gregg.

6               Actually, this is a repeat. Starting on  
7       page 60 for the next few slides, I'd like to just  
8       describe behavior of prices during disruptions.

9               Page, slide 60, I call this an anatomy  
10       of disruption. It turns out that the spot price  
11       jumps pretty much immediately upon the occurrence  
12       of a disruption. That, I don't think, is a big  
13       surprise to anyone. You see the same thing here  
14       in the later part of 1999, that's page 61.

15              You can also see that this is a picture  
16       in the winter, where a number of refineries had  
17       planned turn-arounds. They planned for it, were  
18       quite capable of weathering the fact that part of  
19       the refinery was down. In fact, here you see the  
20       spot prices fell during the turn-around period,  
21       except when a disruption occurred. So, in fact,  
22       planned turn-arounds, if properly done, don't have  
23       a real big impact on disruptions; certainly the  
24       unplanned ones do.

25              This is chart 63, illustrates that when

1 a disruption occurs in Los Angeles, it gets  
2 transmitted through spot prices to the rest of the  
3 state. This is not a big surprise. We are not --  
4 although California is an island, we're not an  
5 island within the state.

6 This chart, number 64, illustrates that  
7 the effect of a disruption in California, as given  
8 by the blue line in the top of this graph, you do  
9 not see that transmission to the Gulf Coast.

10 Finally, this chart 65 needs a little  
11 bit of explanation. This is a picture on a weekly  
12 basis of spot prices in San Francisco during a  
13 period of three refinery disruptions in early 1999  
14 to the middle of 1999. We started the winter with  
15 a period of high inventories, and in fact the --  
16 you see here at the first disruption, the Benicia  
17 disruption, which starts right here in early  
18 January and lasted 12 weeks, spot prices did not  
19 increase because there was probably enough  
20 inventory to cover that disrupted amount.

21 We didn't see a rise in spot prices at  
22 that point, until the second refinery disruption  
23 occurred, which, in fact, that was the longest  
24 one, it lasted 22 weeks. You see that the spot  
25 price went considerably far up there. It fell as

1       soon as this first refinery disruption ended, and  
2       then started increasing again when the third  
3       refinery, the Richmond refinery, had a disruption.

4               There are three total disruptions, only  
5       two refineries at the time, and the spot price  
6       traced out almost perfectly those disrupted  
7       periods. And again, in the early part of the  
8       period, when you had enough inventory to cover it,  
9       you did not see the price spike until the second  
10      one required some scramble for supplies.

11             Page 66 illustrates what Gregg was  
12      mentioning about the behavior of prices during a  
13      disruption. There are a number of colors here to  
14      illustrate that.

15             What we first see is that the spot price  
16      generally moves first, followed by the rack, the  
17      unbranded rack, as Gregg had described, goes this  
18      early above all the other prices. You'll notice  
19      that the price rise occurred much faster than the  
20      fall, and certainly as the branded rack declines  
21      very gradually over time. You can show that  
22      empirically by visual observation, as well as  
23      statistically.

24             I have now reached the point for Thomas  
25      to -- excuse me, Gregg to come back.

1                   MR. HAGGQUIST: Don't worry, this is my  
2                   last act. I think.

3                   Well, in looking at this California  
4                   gasoline market, we looked for analogs or  
5                   comparisons, as we said, to put it context. One  
6                   of the comparisons of the jet fuel market, and one  
7                   of the advantages of being an old guy, like I am,  
8                   is that you happen to have been around when the  
9                   jet fuel consortium actually built their own tanks  
10                  and decided that they were not going to be reliant  
11                  upon local refiners for their supply only. That  
12                  would be part of their supply mix, and the  
13                  consortiums, we're well aware that they have their  
14                  own tankage in Los Angeles, and they buy from all  
15                  over the world.

16                 And as a result, you can see that the  
17                 price volatility for that commodity, jet fuel,  
18                 is -- the blue line is far less volatile than the  
19                 gasoline that's spiking all over the place. It  
20                 has -- because jet fuel does have a broad and deep  
21                 forward market, as that shows us on slide 66, for  
22                 those listening in. And jet fuel is hedge-able.  
23                 It's hedge-able against the NYMEX, because of the  
24                 close correlation to heating oil, and the storage  
25                 is available and controlled by the consumers.



1 Available, because they made it available. And  
2 jet fuel tends to follow the same price as --  
3 generally curves as crude oil does. So as a  
4 result, we don't have the extreme spikiness.

5 That's simply an example. We're not saying  
6 that gasoline is going to be like jet, because we  
7 know there are many differences. Specifications,  
8 one of them. We are concerned with price more  
9 than specification, of spikiness. Spikiness. But  
10 before we talk about that, let's just look at  
11 spikiness as part of the total -- price spikiness  
12 as part of the total barriers.

13 MR. PEREZ: Gregg?

14 MR. HAGGQUIST: Yes.

15 MR. PEREZ: Just for our viewing  
16 audience and those that are listening in, on page  
17 67, I think the clarification we'd like to make up  
18 there in the title for that figure is that it's  
19 jet fuel, not distillates up there, just to avoid  
20 any confusion with diesel, on page 67.

21 MR. HAGGQUIST: Jumping over. There you  
22 go.

23 MR. PEREZ: There you go, up on top.

24 MR. HAGGQUIST: Oh, that should be jet  
25 fuel. Yes. Very good, Pat. Thank you very much.

1       Yeah, this is jet fuel.

2               Although, you know, we don't have one  
3       for diesel up here.  If we put a diesel comparison  
4       chart it would be similar to this.  You would see  
5       that it is far less spiky, more closely resembling  
6       this jet fuel line than the gasoline line.

7               What are the commercial barriers?  We've  
8       been talking all this time about the physical  
9       barriers to entry, to lack of tankage and  
10      infrastructure.  The spikiness of gasoline, who  
11      cares about the spikiness of gasoline, as long as  
12      the street is moving at a lower level of  
13      volatility.

14              Well, one of the problems is it's a  
15      self-fulfilling, a vicious circle.  Spikiness is a  
16      factor of no means for hedging an offshore cargo,  
17      a cargo from outside of California.  As we said  
18      earlier, it takes us three weeks to get a cargo,  
19      at minimum; four, five, six weeks to bring a cargo  
20      into California from offshore, and there is no  
21      forward market.  So any potential supplier  
22      offshore has to deal with a high level of risk  
23      while their ship is on the water.  By the time he  
24      gets here, the 20 cent increase is going to be a  
25      30 cent decrease, and that does happen.

1                   So lack of liquidity in the futures,  
2           forward markets, exposes the importers to  
3           significant risks. Who cares? Well, we're not  
4           here to protect the importers. We're here to look  
5           at structural elements, and to consider these in  
6           terms of other islands where commodities need to  
7           be imported.

8                   Also contributing to this spikiness is  
9           the fact that only blendstocks are available, not  
10          finished gasoline, for a number of reasons. That  
11          implies, and actually means that you need to bring  
12          those blendstocks through the hands of local  
13          manufacturers. And once again, thinking of  
14          manufacturers in any commodity, on any island.

15                   So the manufacturers are the ones that  
16          can certify the final blend. There's no other way  
17          to get in here. Independent traders and marketers  
18          are locked out from accessing the global economy,  
19          if you want to put it that way. That's -- all of  
20          those doors are closed. And, you know, the  
21          refiners here do have global systems, some of  
22          them, and they have access to global systems.  
23          That's nothing wrong with that, that's good. That  
24          is good. The point is that there's no access  
25          other than the local manufacturers.

1                   So there are fewer players able to  
2       participate in this market, which differentiates  
3       it profoundly from Singapore, from Rotterdam, from  
4       New York Harbor. And in an important commodity  
5       such as gasoline, and the State of California  
6       reliant upon driving, reliant upon the automobile,  
7       it begs the question of whether it is acceptable  
8       or not acceptable.

9                   So how do you establish forward  
10      liquidity? What is forward liquidity? People in  
11      the room or listening who have not ever traded a  
12      commodity might wonder what that means. This is  
13      where you need to think physically here. We're  
14      not talking about stocks or an abstract forward  
15      price. We're talking about ways to sell a  
16      physical commodity in a -- when it gets to the  
17      marketplace. You need a minimum number of buyers  
18      and sellers. This is -- these factors, by the  
19      way, are coming to us from the experts in NYMEX,  
20      in ICE, the Internet Continental Exchange; IPE,  
21      which is the great exchange in Europe, and from  
22      Singapore players and players in Asia. These are  
23      needed to create or have any kind of a forward  
24      market.

25                  You need a physical delivery point with

1 sufficient inventory capable to act as a place, a  
2 market, we call it a sink on this slide, slide  
3 number 70. You need a bazaar, a place where the  
4 commodity can change hands. We have no such  
5 place.

6 You need fungible products and well  
7 defined specs. You will find a little later on  
8 that this is what we are proposing, our  
9 recommendations will take care of that. You need  
10 multiple supplies from -- our proposal will take  
11 care of that, also.

12 So when you have a forward capability in  
13 a marketplace, so that when you bring -- futures  
14 markets were born by farmers trying to bring grain  
15 into Chicago, into the market in Chicago. But  
16 while the railcars were en route, of course the  
17 railroad itself would gobble up all the profit,  
18 and there was no knowing what the final market was  
19 going to be in Chicago. And so anyone who wants  
20 to look at the history of futures markets can go  
21 back to that and the establishment of the Chicago  
22 Board of Trade, just for an analog.

23 So we need a forward market. Only when  
24 a futures market exists can remote supplies be  
25 hedged into the destination market. And if you

1 look at the biography of Rockefeller you'll find  
2 out how he made his money, by making sure no one  
3 else could hedge except him. Hedging is a  
4 prerequisite of long lead time imports by  
5 independents. Those are just facts.

6 What are the disadvantages of extreme  
7 volatility. Well -- did we skip -- yeah, I'm  
8 sorry, ladies and gentlemen. Where's our map?

9 MS. BAKKER: The positive first,  
10 advantages.

11 MR. PEREZ: The next one.

12 MS. BAKKER: There.

13 MR. HAGGQUIST: Sorry, people. It is  
14 extremely volatile.

15 There we go. Here's the map. Now, the  
16 reason we're bringing this map up again is to --

17 MR. HACKETT: And Gregg, you might point  
18 out to the folks listening in that we've inserted  
19 an additional slide. We brought up that map of  
20 the world called California's Gasoline Import  
21 Routes, to illustrate the geographical issues.  
22 But we did that late this morning, and so we  
23 apologize to those of you out there. That's now  
24 69. We'll be one number off on our slide count.

25 MR. HAGGQUIST: Okay. And you've seen

1       this map earlier. But we want to look at it from  
2       a different point of view here, because once  
3       again, we're emphasizing the concreteness, the  
4       specific-ness of this potential strategic fuel  
5       reserve here in Los Angeles. All lines lead to  
6       Los Angeles. We've become the center of the  
7       universe for the purpose of this strategic  
8       reserve.

9               I invite you to put yourself in the  
10       position of an offshore supplier. Let's go to a  
11       convenient place like the Caribbean island down  
12       here. It's very realistic. Cargoes come from the  
13       Caribs into Los Angeles. It's a 14-day voyage  
14       through the Panama Canal. In today's shipping  
15       market it costs you about seven cents a gallon to  
16       make that voyage. Let's suppose we have a price  
17       spike here in LA, a refinery goes down, and the  
18       price jumps up to a dollar a gallon in the spot  
19       market. Dollar a gallon in the spot market.

20              Let's suppose New York Harbor is, at  
21       that point in time is at 85 cents a gallon,  
22       because we've jumped up, you know. And the  
23       Caribs, that puts it at New York minus, down in  
24       the Caribs it's New York minus, so you're probably  
25       be at 82 cents, 83 cents. Eighty-three cents.

1 Your freight is seven cents a gallon. You get all  
2 the way to LA for 89 cents in what is today a  
3 dollar a gallon market. That's a tremendous deal.  
4 You want to just put that cargo on the water and  
5 go to LA.

6 The problem is, while you're en route,  
7 that market collapses, as it often does, and that  
8 nice, tidy, profitable cargo becomes a disaster,  
9 as it often does. And as a result, you're  
10 inhibited until you find a collection of buyers on  
11 the other end who will be there to actually take  
12 the whole cargo from you. And who are those  
13 buyers? Do you have access to them? Can an  
14 independent retailer buy from you, can a trader  
15 buy from you? No. There's a handful of companies  
16 who can buy from you, and they are the companies  
17 that have storage.

18 So there's no storage, no place to bring  
19 it, except for the gatekeepers, which are the  
20 companies that have the storage. This is just the  
21 way things have evolved. Unintended consequences.  
22 There's no conspiracy here, there's no collusion  
23 here. This is just the way things have evolved  
24 over time.

25 So this supply guy down here, or girl



1 down here, this lady or whoever it happens to be,  
2 may not put her cargo -- her or his cargo on the  
3 water today, waiting and waiting and waiting. And  
4 it doesn't happen, so this price spike of a dollar  
5 a gallon in LA stays up there and stays up there.  
6 And it never comes in.

7 At the same, very same time, a remote  
8 supplier, like down in Australia, he's 20 days  
9 away, which is one week later, he's got even a  
10 cheaper FOB price when he adds his freight to it,  
11 because, as Thomas pointed out earlier,  
12 international freight rates are much lower than  
13 American flag freight rates. So the Australian  
14 supplier can get all the way to LA for nine cents  
15 a gallon, and he might be at 79 cents a gallon  
16 FOB, and he might get here cheaper, at 88 cents.  
17 But he won't come either, because that's a longer  
18 haul. He won't come until he can organize enough  
19 buyers on the other side to come here.

20 So this center of the universe, this  
21 strategic fuel reserve, will be a place, a place,  
22 first of all, where these ships can come and  
23 unload. And we'll talk about that a little bit  
24 more later on.

25 So the advantages of having such a

1 strategic reserve, the current situation is  
2 there's no hedging mechanisms. And as I just  
3 walked you through, what does that mean. It puts  
4 you in a state of fear if you're outside and you  
5 want to go to California with your commodity.

6 A benefit of a strategic reserve is the  
7 strategic reserve is a physical receiver, based on  
8 the auction or the tender differential. And we'll  
9 explain that later.

10 The current situation, there is no  
11 physical location for discharge. The SFR does  
12 provide the physical location that you need. Then  
13 today, there's no access to come into a pipeline  
14 from offshore. Pipeline is the way price -- the  
15 commodity moves all over the state. But the  
16 strategic reserve would be connected, as we've  
17 emphasized over and over, to the pipeline.

18 There's no storage for components in LA.  
19 Well, we are going to suggest, we're going to  
20 recommend that private storage be encouraged  
21 alongside the strategic fuel reserve. Imagine a  
22 bulls-eye with a second ring around the bulls-eye  
23 being the private sector tanks, the center of the  
24 bulls-eye being the strategic fuel reserve.

25 Very thinly traded forward market,

1 compared to what a strategic fuel reserve would  
2 produce, would be physical location and mechanism  
3 by which trades could take place forward.

4 Unmanned price volatility today --  
5 unmanageable price volatility today, compared to a  
6 transparent -- the free market can discover and  
7 hedge market value, because it will be a  
8 transparent tender auction.

9 There's not enough liquidity. We will  
10 create -- this will create liquidity. And price  
11 discovery today is limited on limited transaction  
12 phone calls and hearsay, and as best as we can do.  
13 Nothing wrong with it. But this will create, SFR  
14 will create transparent electronic tenders or  
15 auctions that will tell us what the forward value  
16 really is.

17 So who cares about extreme volatility?  
18 Why should we care about that? You know, we'll  
19 hear from every sector of the market, I'm sure,  
20 but we don't think it's good for the industry's  
21 image. It becomes a public issue, when price  
22 jumps up overnight. And I'd like to point out  
23 here, what was thought about this, we went through  
24 last year's electricity crisis. Electricity  
25 crisis is an amorphous, difficult to understand

1 commodity. Who, other than Einstein and Edison,  
2 understands the flow of electricity?

3 However, if we have a problem in  
4 gasoline supply, everyone -- it lends itself to  
5 the Ross Perot chart, you know. We having a  
6 problem out here? Why is that? We just don't  
7 have enough tanks. You know. There's no tanks,  
8 no way to get it here. You know.

9 You want to see a price spike? You come  
10 to Los Angeles.

11 (Laughter.)

12 MR. HAGGQUIST: And, you know, it lends  
13 itself to the boat, the tank, the truck, the gas  
14 station. Everyone can understand that supply  
15 chain. So there's really no excuse whatsoever for  
16 this island of California to remain an island if  
17 it doesn't want to.

18 So it's not good for the industry's  
19 image. It creates increased scrutiny. That's why  
20 we're here today. You know. Unpredictability.  
21 It's not good even for Wall Street. They don't  
22 like these, you know, huge jumps up and down in  
23 the value of a stock. Long-term consumer behavior  
24 is negatively impacted. Well, we can argue about  
25 that. But, you know, if you're going to buy a

1 bigger car and you have a volatile price and you  
2 don't know whether it's going to be \$2 or \$3 or  
3 \$1, you're going to change your family behavior.

4 For independents, who cares. We're not  
5 here favoring independents. We're just saying  
6 that if we're going to have an independent market  
7 in this California, we must recognize that  
8 they're, as we call it, the edge of the spike, the  
9 edge of the spear. They get hit first. They take  
10 -- they have an advantage on the downside, but  
11 it's a very dicey situation here.

12 Unable to keep customers supplied is a  
13 problem with the independents. And unable to  
14 source supply from outside California. This is  
15 not healthy, we propose, when we look at other  
16 islands, and other commodities on other islands,  
17 if the local marketers can't get their commodities  
18 from anywhere else.

19 The consumer pays ultimately at the  
20 pump, as Tony Finizza has shown us. So these  
21 other impacts at the consumer level will need much  
22 more analysis than we're going to do in this  
23 study.

24 So at this point I'd like to turn it  
25 back to Thomas Gieskes, to show us how a forward

1 trade will actually work, and what the options  
2 are.

3 MR. GIESKES: Thanks, Gregg.

4 So in this next section we'll try to  
5 show you how this reserve would actually work.

6 We looked at a number of alternatives.  
7 The first alternative that had been looked at in  
8 the past, as well, is simply for the state to go  
9 out and build tankage. And we quickly came to the  
10 conclusion that the state is not necessarily best  
11 equipped to do that, that it would not be cost  
12 effective. And what we foresee is that this  
13 reserve would take the form of tenders to be  
14 issued to the industry, and that the established  
15 service providers, some of whom are represented in  
16 the audience today, would then come forward and  
17 bid on this.

18 In any case, the volumes that we  
19 propose, given the restrictions of land, et  
20 cetera, et cetera, require, in all likelihood,  
21 multiple locations for this reserve. So even if,  
22 say, we propose something like three or four  
23 million barrels to be built in the LA Basin, then  
24 I don't think that any of the individual parties  
25 would have sufficient land available to do that,

1       and multiple locations might be good from a spread  
2       of risk perspective, as well.

3               And, anyway, the tankage would then be  
4       built under tenders, and if we look at current  
5       market indications, and actually prices have moved  
6       up on a short-term basis, if you can find tanks on  
7       a short-term basis, above 60 cents per barrel per  
8       month now. But indications that we received  
9       during our feedback process initially, in  
10      stakeholder interviews, is that you could likely  
11      contract something in the Bay Area for around 45  
12      to 50, and maybe in the LA Basin around the 55  
13      cents per barrel per month. And those are the  
14      numbers that we've taken forward in our further  
15      economic evaluations of this, as in our proposal.

16             We've also looked at the conversion of  
17      fuel oil tankage that's still idle at some of the  
18      power stations. There are a couple of those in  
19      the Bay Area, and there's one or two left in the  
20      LA Basin. Probably costs are not all that  
21      dissimilar from building new tankage. These tanks  
22      are large, they're old, they would need to be re-  
23      permitted, would need new -- you know, for the  
24      roofs, new bottoms, et cetera, et cetera. So  
25      costs would not be substantially different.

1       Should, however, one of the parties bidding on  
2       these tenders find that to be a cheaper  
3       alternative, then the market would do its usual  
4       work.

5               We've also looked at floating storage,  
6       and some of the other idle tankage that's still  
7       available in the state, and all of those were  
8       really non-starters.

9               So the proposed configuration for the  
10       SFR would be for the state to facilitate building  
11       of about five million barrels of tankage, and  
12       we're still not completely sure on how the  
13       tankages need to be distributed, but the range  
14       would be to build one to two million barrels in  
15       the Bay, because that's where the problems are not  
16       quite as severe, and then three to four million  
17       barrels in the LA Basin.

18              As I said, they would be based on a  
19       tender to be issued to qualified parties. The  
20       state would actually itself only lease directly  
21       about half of the tankage for the strategic  
22       reserve. The remainder would be available for  
23       short-term usage by the industry.

24              One of the reasons that we pointed out  
25       before is why doesn't more tankage get built at



1       the moment, is that most of the interested parties  
2       that, say the traders, the importers, et cetera,  
3       are interested in short-term leases. Most of the  
4       tankage that is built was built a long time ago,  
5       where somebody needed tankage bad enough to do a  
6       long-term deal, at the end of that long-term deal,  
7       say a 10, 15 years contract, such tankage then  
8       becomes available for the -- this rental market.

9               The state, in this case, would issue a  
10       guarantee, a long guarantee that would cover only  
11       the financial charges to get the tankage built,  
12       and would allow a builder to go out and obtain a  
13       favorable loan rate, but it would not cover the  
14       operating expense. So the onus would really be on  
15       the commercial operator to lease out that tankage.

16              And as Gregg pointed out, that industry  
17       tankage would surround, as the outer ring, the  
18       tankage that would actually contain the physical  
19       reserve. And we foresee that tankage to be  
20       primarily then used for blendstocks, et cetera,  
21       used to produce the CARBOB that has to go in the  
22       strategic reserve itself.

23              Moving on to slide 75 on the screen,  
24       slide 74 in the handout and the Web pages -- oh,  
25       that is actually -- it's doing it again.

1           The operating principle for the SFR, and  
2           at this stage, and we're at a sort of the stage of  
3           a conceptual study. We by no means claim that we  
4           have all the details sorted out --

5           MR. HACKETT: It skipped one. You're  
6           back up to the picture.

7           MR. HAGGQUIST: Oh, yeah. I'm going to  
8           pull out -- let's go to the -- there we go.

9           So this is a pictorial, a picture is  
10          worth a thousand words, of how the strategic  
11          reserve would work. As I said before, about half  
12          the tankage, which is the yellow part, that's the  
13          bottom in the -- for the black and white viewers,  
14          would be the SFR volume itself. And we've dubbed  
15          that the Gasoline Bank of California.

16          Imports of CARBOB would go directly into  
17          the tankage. Blendstock imports would go into the  
18          private leased tankage surrounding the SFR.  
19          Refineries, since these would be connected into  
20          the gathering system and into the long distance  
21          transportation CARBOB system, would have a  
22          possibility then to either lift from the reserve  
23          if they need stuff, or put stuff back in. And, of  
24          course, deliveries from the gasoline bank would go  
25          directly into the distribution system, ultimately

1 to the truck racks.

2 The operating principle, and as I was  
3 saying before, before I realized that I had  
4 skipped a slide, and we're now on 76, us that the  
5 initial fill, roughly two and a half million  
6 barrels, would have to be purchased very, very  
7 carefully in order not to create a shortage all by  
8 itself. So the way we envision this to take place  
9 is during the winter months, where foreign  
10 producers would have the opportunity to supply  
11 CARBOB, this once will again also be done on  
12 tenders.

13 Supplies might come, for instance, from  
14 Irvine in East Canada, and certain of the local  
15 refiners would have excess capacity in the  
16 wintertime. And not everybody is capable of  
17 producing both summer and winter grade at the same  
18 time but I'm sure that could be managed, and  
19 rather than having to cut back production, as was  
20 the case in January and February of this year, you  
21 would have the opportunity to supply material into  
22 the reserve.

23 We foresee the reserve to be a summer  
24 reserve only, so it would contain low RVP gasoline  
25 year-round. The price spikes and the -- all the

1       supply disruptions having a severe effect on  
2       prices, are strictly a summertime event. Price  
3       spikes in the winter are rare. Should a serious  
4       outage occur in the -- in a winter month, and  
5       you'd have to dip into the reserve in the winter,  
6       there might have to be some blending going on to  
7       increase vapor pressure, or, alternatively, you  
8       would be able to swap material around within the  
9       state so that the low RVP material would stay in  
10      those counties where low vapor pressure is not a  
11      problem. And you would reserve the remaining high  
12      vapor pressure material for the mountains and the  
13      colder regions.

14               But, as I said, we do not claim at this  
15      point that we have resolved all the practical  
16      operating problems. There's a serious round of  
17      further work that needs to go on to figure all  
18      this out. We've asked the refiners, for instance,  
19      what their opinion would be on the shelf life of  
20      the CARB Phase III gasoline. We think it should  
21      be fairly good, because you remove some of the  
22      olefins and sulfur, et cetera. But those are  
23      still unresolved questions at this stage.

24               On the auction mechanism that Gregg  
25      pointed out, we envision at this stage that a

1       daily electronic auction would be conducted, a  
2       little bit similar to what's happening in  
3       Singapore with their 5:00 o'clock, and maybe here  
4       at 9:00 o'clock in the morning, an electronic  
5       auction would take place where a participant,  
6       qualified participants could bid on the lifting  
7       right to do a forward time swap for a prompt lift,  
8       and then a replacement in kind within four to six  
9       weeks.

10               And that quantity of 50,000 barrels a  
11       day at the moment is purely an arbitrary number.  
12       That might actually be a range, depending on  
13       certain circumstances or the level of interest in  
14       the market. The 50,000 was chosen with the idea  
15       that if you have two and a half million barrels  
16       and you have, say, 20 auction days in a month,  
17       then -- and every single day the full 50,000 would  
18       be lifted, which is not always going to be the  
19       case -- then you would have one million barrels on  
20       the water, so almost half your reserve, 40 percent  
21       of your reserve, would be sitting on the water  
22       pointing back at you, and you would still have 50  
23       percent left in the tank. And the 50 percent  
24       average inventory is probably right smack in the  
25       middle of the work, that's where you want to be.

1           The other thing is that the 50,000  
2       barrels a day, as we will see later when we look  
3       at the effectiveness of the reserve, would have  
4       covered substantial outages in the past, and is  
5       the order of magnitude that we've seen that can  
6       swing the entire market around. I mean,  
7       currently, the market moves on a single piece of,  
8       say, 25 to, say, 50,000 barrels a day, can indeed  
9       have a significant impact on the total market.

10           Speculative use. There will be gaining  
11       around the reserve, but we think you can limit it  
12       by putting in a requirement for physical lifting,  
13       and also the physical re-supply requirements and  
14       the quantity limitations. The 50,000 barrels a  
15       day certainly would be significant barriers to  
16       effectively gaining this reserve.

17           The development of derivative trades or  
18       trades surrounding the, say, a party, party A  
19       might have lifted some material from the reserve  
20       and then has an obligation to re-supply. He could  
21       trade that obligation to re-supply off to another  
22       party, and we foresee that that is just very  
23       beneficial. That will create an active and  
24       forward trading market, and will help to establish  
25       a liquidity in that forward market.

1                   As Dave has pointed out before, and  
2                   Gregg, as well, the participants would have to be  
3                   qualified. You cannot have the situation that you  
4                   had when the volumes were released from the  
5                   strategic petroleum reserve recently, where the  
6                   winning bidders were totally unqualified. It's --  
7                   somebody operating from his bedroom putting in a  
8                   low bid is not what we envision as suitable for  
9                   the California market. But they would certainly  
10                  include the refiners, the major traders,  
11                  independents, anybody who has a proven track  
12                  record of being able to physically re-deliver  
13                  barrels to the reserve. Besides financial  
14                  qualifications.

15                  And how would this all play out. And  
16                  this graph here, we show the differential between  
17                  the prompt and the forward markets. And as Gregg  
18                  pointed out, forward market is -- currently is a  
19                  very thinly traded market, very few deals. The  
20                  deals are not always reported. This is based on  
21                  private information, but it shows that at the time  
22                  of a price spike, as you could expect -- and for  
23                  the people that listen in we are now on slide  
24                  77 -- the LA prompt market is in blue, which you  
25                  can't see, but it has, as the markers, the little

1 triangles, and the forward market is the green  
2 line that has little squares as the marker.

3 And what you see is that when a price  
4 spike occurs, and I'm looking, for instance, at  
5 September 27 in 2000, a significant price  
6 explosion occurred, that's, when a price spike  
7 occurs, the prompt market loses sharply, the  
8 forward market is then severely backward dated, as  
9 it's called, it stays much lower. And that is  
10 because people have no idea how long this price  
11 spike is going to last at that point. And it  
12 moves up a little bit, but usually much, much  
13 slower.

14 And now I'm going to move on to a series  
15 of slides that are animated, so for those people  
16 that look at the handout, or at the Web pages,  
17 this is slide 78, they get to see the whole thing  
18 at once, and here I'll walk the people step by  
19 step through the analysis of a price spike.

20 So what we see here is a sort of  
21 animated feature of what happens if Refiner A has  
22 a problem in week one. What typically happens  
23 then is that as soon as the market gets wind of  
24 this, and the extent of the damage becomes clear,  
25 Company A will have to go in the market and they



1       try to do it as long as possible, hide the  
2       problem, gobble up any available piece that's out  
3       there on a prompt basis, and nevertheless, the  
4       price starts to move and then some other trader  
5       gets wind of it and says oh, Refiner A is in the  
6       market. And before you know it, you have a really  
7       severe price excursion that is not followed in the  
8       forward market.

9               And, of course, the export markets,  
10       which are the blue line here, and then the dotted  
11       line above it represents the shipping cost, don't  
12       move, either.

13              And so on a prompt price differential,  
14       there would be sufficient incentive to put a cargo  
15       in the market, and this is what Gregg pointed out  
16       earlier. You're sitting there in the Caribbean,  
17       seven cents freight differential, 20 cents price  
18       differential, you could make a million dollar on  
19       the single cargo. Sounds very attractive to me.  
20       There have been days when that would've come in  
21       handy.

22              Since the forward market is not moving  
23       up, you are still on the water on the forward  
24       market at that point in time, and since your  
25       shipping time is -- this is not the case for the

1 Caribbean, but it is the case, say, for the AG or  
2 some of the more remote export locations like the  
3 Canadian East Coast, you're looking at say four  
4 weeks to put that cargo on the water. Your  
5 shipping time would come in well after even, say,  
6 the most forward deal that you currently can do in  
7 the forward market. So you have no idea at that  
8 point in time what your trade would be valued at.

9 And so what will happen in week two.

10 And as Tony has pointed out, the probability of  
11 coinciding disruptions is quite real, and often  
12 it's only in, say, when the second event happens  
13 that the market really takes a hike. So in week  
14 two here, Company B announces that unfortunately,  
15 the start-up of their refinery after a planned  
16 event has been delayed.

17 Sorry, that's not good. I actually got  
18 all the way back here. Sorry about that. There  
19 we go.

20 So in week two, another refinery problem  
21 occurs, another disruption, and the market then  
22 responds quite -- is quite severe. At this point  
23 in time, the forward market also starts to move  
24 up considerably, and the export markets are still  
25 where they were, more or less. So now an importer

1       decides to take the risk and float a cargo. So  
2       his cargo is sent out there, booked at a price  
3       slightly above 60 cents per gallon, and expected  
4       to come in in week seven sometime.

5               And then, obviously, things take their  
6       usual turn. Refiner B finally completes the turn-  
7       around. In week five Refiner A brings back his  
8       installation online. First, other cargoes,  
9       because this is only one incident, usually in  
10      terms of refinery incidents you'll see four or  
11      five cargoes coming in at the same time, but  
12      prices start to drop in anticipation of that  
13      material sitting on the water and coming in, and  
14      refiners being back online. So prices have  
15      dropped. And by the time a refiner -- sorry,  
16      importer sees cargo shows up, the market has  
17      fallen to well below his cost, and he has a net  
18      loss of a million dollars, where he was thinking  
19      of -- or maybe two million dollars, even, where he  
20      was thinking of making a million. This is a  
21      severe barrier to imports currently.

22              So what would happen if the strategic  
23      fuel reserve would have been in place, the way  
24      Stillwater is proposing.

25              Start out with the same scenario. At

1       Week A there is a refinery fire. The extent of  
2       the damage becomes clear, et cetera, et cetera,  
3       and prices start to move up above import level.  
4       I'm on slide 81 now. So as soon as the spot  
5       market has moved up above the level where imports  
6       become attractive, somebody can now do a forward  
7       time swap, can go to the ticket office at 9:00  
8       o'clock, open up and bid on the -- on a time swap,  
9       put in, say, a two or three cents bid for the  
10      forward, regardless of whether the forward market  
11      would have been there, that little green line, at  
12      that point in time.

13                So he bids on the value of that  
14      backwardation. And as soon as he has a bit of  
15      orders, he could float a cargo in the expectation  
16      that he would have other volumes as well, 50,000  
17      barrels a day, but he could do other volumes as  
18      well, and could get to the size that he needs for  
19      a cargo.

20                So the reaction of the importer is  
21      immediate. As soon as you have an arb that works,  
22      you don't have to wait for that, how long will  
23      this price spike hold, you could take a decision  
24      to float a cargo immediately. That's a major  
25      differential.

1                   This, of course, will go all the way  
2                   through, and the forward market then becomes more  
3                   closely related to the export markets, will go all  
4                   the way through in that scenario. In week two  
5                   Company B has an upset, announces a delay, and  
6                   what you might then expect is that actually, the  
7                   export markets, because the export markets for --  
8                   the markets in the export location, let me put it  
9                   differently, that are capable of supplying product  
10                  suitable for the California market, are not all  
11                  that broad, either.

12                 What you might see in that case is that  
13                  the export markets start to track the California  
14                  market a little closer. So where currently you  
15                  see no linkage between export markets and the  
16                  California market, in the case of a price spike,  
17                  as Tony has pointed out, you might anticipate some  
18                  tracking there, but only to the extent that the  
19                  arb stayed open. The arb is the net trading  
20                  differential.

21                 But in any case, when Refiner B has  
22                  their problems, they can decide also, right there  
23                  and then, to float a cargo, identify a possibility  
24                  to bring material in, and supply that shortfall.  
25                  Importer C sees the same thing. The forward

1 market starts to track now very closely what the  
2 actual physical value of the material coming in  
3 will be.

4 And the long and the short of it is that  
5 by the time these cargoes actually come in to the  
6 market in week six to eight, there has been no  
7 significant price increase over and above what  
8 import values represent. So it starts to track  
9 the global market for gasoline components suitable  
10 for delivery into the California market quite  
11 closely.

12 Also, when finally these components,  
13 these ships do show up, they have no impact on the  
14 market. You don't see the deep swing on the  
15 downside, either. If now four, five, six vessels  
16 are on the water all aimed at LA, and they finally  
17 do get offloaded, all they do is a physical  
18 replacement of inventories already lifted. So you  
19 don't see the deep downswings, either, and there  
20 is not that significant loss.

21 So instead of gambling on the plus 20  
22 cents, minus 20 cents, and very few people are  
23 willing to take that gamble, what you see is a lot  
24 of people being very happy indeed, making a couple  
25 of cents profit on a cargo that is locked in.

1                   So that, in essence, is how we foresee  
2                   these market mechanisms to work. And if we look  
3                   in summary on this, the market mechanisms, there  
4                   is no doubt that California has become  
5                   increasingly import dependent, that refiners are  
6                   probably quite interested in adding capacity, but  
7                   that the infrastructure is currently inadequate to  
8                   handle those imports. With the MTBE phase-out,  
9                   we'll aggravate that situation.

10                   MR. FINIZZA: Thomas, you jumped into  
11                   101. You're stealing my speech.

12                   MR. GIESKES: Oh, yeah.

13                   (Laughter.)

14                   MR. GIESKES: I don't want to do that.

15                   That's --

16                   MR. PEREZ: Appreciate you trying to stay  
17                   on time.

18                   MR. GIESKES: Yeah. Yeah, yeah. Oh,  
19                   man. I thought it looked funny. There, the  
20                   conclusion.

21                   So the effect of the SFR is to peg  
22                   California to the world market. And to, once that  
23                   is done, once you peg California to the world  
24                   market by established mechanisms, you can also  
25                   hedge California gasoline then to much more liquid

1 future markets, like the New York NYMEX. If  
2 California starts tracking export markets in a  
3 regular way, without that extreme spikiness, you  
4 can envision that whole new level of liquidity  
5 will emerge in forward markets.

6 The scarcity of the imports of suitable  
7 blendstocks will remain an issue, but I think that  
8 -- and we've shown that in some anticipation of  
9 upward movements in those cases, as well, but you  
10 have a much broader basis to work in. And once  
11 potential exporters of volumes to California see  
12 that exports can become a regular issue, they have  
13 more incentive to invest in increases of their  
14 capacity, as well.

15 That, then, does conclude this.

16 We move on now to the effectiveness of  
17 these words, and I'll turn it over to Tony  
18 Finizza, who will walk us through that.

19 MR. FINIZZA: Thank you, Thomas. Can  
20 you explain to me how you'd avoid going to 101?

21 MR. GIESKES: Well, no, that's very  
22 difficult. But if you hit that button it'll do  
23 it. If you hit the button just next to it, you're  
24 at the end.

25 MR. FINIZZA: Oh, my.



1                   This next part I'm going to try to model  
2           the impact of future disruptions on the market.  
3           And I believe it's a pretty safe forecast to say  
4           that disruptions in the future will occur.

5                   The database I showed you earlier, the  
6           average days between disruption is 38 days, and  
7           the actual longest period was 259 days. So it's  
8           pretty safe to say that we will see some  
9           disruptions in the future.

10                   That estimate is going to be a function  
11           of four facts. How likely is a disruption going  
12           to happen, how big will it be, how long will it  
13           last, and what is the price responsiveness to  
14           those disruptions.

15                   Thomas, I want to go back to the old  
16           technology. Let me do it in reverse order.

17                   The first point I'd like to talk about  
18           is the price responsiveness. And, of course, it's  
19           going to be both a combination of the demand  
20           elasticities and supply elasticities. Demand and  
21           supply are both highly inelastic when it comes to  
22           gasoline. And inelastic means that a small change  
23           will, of course, cause a very large price impact.  
24           And what I'm going to try to model is the  
25           combination of both those effects.

1                   Now, we have some help in that. This  
2                   table on page 85 gives a range of estimates from  
3                   the literature. I think I've encompassed most of  
4                   them. I think perhaps I missed one study.

5                   The ones at the top, the range of  
6                   estimates given that are cited for the Federal  
7                   Trade Commission Midwest Gasoline Investigation,  
8                   actually the numbers they used are capturing both  
9                   effects. The others are strictly demand  
10                  elasticities.

11                  The literature is unfortunately very  
12                  light on estimates of supply price elasticity. We  
13                  know it's not entirely inelastic, like a lot of  
14                  people assume, but it's fairly close to that. We  
15                  do know that when there's a supply disruption  
16                  people can grab stuff from inventories, and things  
17                  of that nature.

18                  So the question is, what is the  
19                  combination of these effects. And what I've  
20                  settled on is a range of minus .1 to minus .2, so  
21                  that a disruption would have a multiplier effect  
22                  of ten times or five times the volume percent  
23                  that's disrupted. And, of course, that disruption  
24                  volume is the net effect of lack of production and  
25                  drawing from inventories.

1 Others recently have used numbers, and  
2 these are all to try to capture the full effect,  
3 numbers that are in certainly, at least the top  
4 two, in this range. So I feel somewhat  
5 comfortable presenting this range. Also, when you  
6 look at data in some of the disrupted periods,  
7 they seem to fit into this range, as well. I've  
8 calculated numbers of about minus .15 to minus  
9 .22. So this range is, I think, fairly  
10 appropriate.

11 I'll be the first to admit that it's  
12 always been that wide a range. This could be a  
13 little bit higher on that end, of course.

14 The next step is to -- not good, that  
15 old technology didn't help me again. What is the  
16 probability of a refinery having a disruption in  
17 the future. Well, we can model it as the average  
18 that's occurred in the last four years. I'll also  
19 show examples of if we were going to be lucky and  
20 not lucky, and we can do those as sensitivities.

21 The chance of a refinery having a  
22 measurable disruption in a given week is roughly  
23 two percent. Of course, there are more than one  
24 refinery around, so, in fact, the chance of a week  
25 going by without a disruption is something like 86

1       percent. These are binomial, they either have a  
2       disruption or you don't. With a lot of  
3       observations, which we do have, you can  
4       approximate that by the normal distribution.

5               The distribution of sizes of  
6       disruptions, you can flip back to the table, or  
7       the chart on 20 and 21, if you wish. But these  
8       disruption sizes are tilted towards the small end.  
9       I've modeled that with a lognormal distribution,  
10      with an actual mean that you observe, which is  
11      20,000 barrels a day. The standard deviation is  
12      quite high, 15.

13             The length of disruption. You will --  
14      also could go back to the chart on 21 to see the  
15      kind of figure that I drew from. That  
16      distribution says the mean is roughly 2.7 weeks.  
17      There's a long tail to it. Large, long  
18      distributions do happen, but very infrequently.  
19      I've modeled that with a lognormal distribution  
20      with a mean that you find in the data, plus a high  
21      standard deviation.

22             For the statistical geeks in the world,  
23      you want to use a lognormal, because you can't  
24      have minus numbers here. You could get some funny  
25      numbers.

1                   So, if I look on the next chart, called  
2     Distribution of Disrupted Barrels, I've run a  
3     Monte Carlo. Assuming we get a thousand  
4     repetitions of a year, using these parameters,  
5     this would be the distribution of all potential  
6     trials that nature might give us. And it turns  
7     out that the expected value, the mean of that  
8     distribution says that on average, you would get  
9     1.2 percent of production disrupted over a number  
10    of time periods. So this is per year.

11                  If you want to look at the distribution  
12    of that, of course, some of it looks like the  
13    distribution that you find historically.  
14    Obviously, you could see numbers as high as one  
15    and a half to 2.7 percent of production. You  
16    could then apply those elasticities to that  
17    distribution, and actually calculate the economic  
18    cost, incremental economic cost, to the consumer.

19                  Some people may be optimistic and say  
20    let's assume, rather than use the average, we use  
21    an example period like that was -- that occurred  
22    in 1998, so let's use the low probability, the  
23    small duration, the small disruptions. I think we  
24    have this backwards, don't we?

25                  MR. GIESKES: Yeah. You're right.

1                   MR. FINIZZA:  Somehow we changed the  
2                   title after this.  Excuse us.

3                   This actually is the highs.  This is  
4                   modeling, page --

5                   MR. GIESKES:  It's 89.

6                   MR. FINIZZA:  -- 89, in your handout,  
7                   and for those on the Web.  It's called  
8                   Distribution of Disrupted Barrels, Lows.  These  
9                   are actually modeled after the 1999 year, in fact,  
10                  and production is expected to have 3.5 percent of  
11                  production disrupted.

12                  This one is truly as labeled, the  
13                  distribution of worlds if we use the low  
14                  assumptions of disruptions.  And there, you get  
15                  numbers, fractions of percent, .2 to .5 percent.

16                  Economists love to give you ranges, and  
17                  I will not disappoint you.  This table catalogs,  
18                  given the two extreme values of the shock  
19                  elasticity used, plus the three types of  
20                  parameters for the size, length, and occurrence of  
21                  the disruptions, you can see in this column here,  
22                  labeled 1996 to 2000 average parameters, that the  
23                  range of additional consumer costs in these worlds  
24                  would be roughly one to, say, two billion dollars.  
25                  If you had the optimistic low end, it'd be .9 to

1       1.8 billion dollars. In the, God forbid, repeat  
2       of the 1999 world, you'd get three to six billion  
3       dollars.

4               These all assume a retail gasoline price  
5       of \$1.25 a gallon, which is hard to find. It  
6       actually isn't that terribly sensitive to that,  
7       since it changes off that. I guess the Sacramento  
8       prices are near 1.50 today. So these numbers  
9       would go up a little.

10              Well, I decided to do something in  
11       addition to this, and that is to examine the  
12       possibility that we have the right size of  
13       inventory. And the question is, how should we --  
14       does this tell us anything about the size of a  
15       strategic fuel reserve. Of course, the  
16       legislative prescription calls for 2.3 million  
17       barrels. Some people might be tempted to say just  
18       assume one refinery suffers a average disruption,  
19       and then you need 380,000 barrels. What would you  
20       have needed to cover the maximum disruption, it's  
21       certainly higher, and I didn't know the number so  
22       I used the famous question mark.

23              But I decided to model it with  
24       historical distributions, and see if that could  
25       help us out. So, this distribution, called

1 expected size of a disruption, impact times  
2 length, is not time dependent. It is at a point  
3 in time. What is the distribution of those  
4 disruptions, both impact and length. So in other  
5 words, the number of total barrels in a  
6 disruption. It appears on slide, I think, 93.

7 Here it says the expected value, if you  
8 were to model it according to the historical  
9 parameters, the size of the disruption would be --  
10 the average, the disruption would be 385,000  
11 barrels. Of course, you want to make sure that  
12 you can cover more than just the average, so if  
13 you went to the, say, 90th percentile of that  
14 distribution, you'd need 870,000 barrels to cover  
15 the future possibilities of disruptions.

16 I just want to remind everyone that this  
17 assumes independence, which I believe might be an  
18 accurate assumption. The chance during a given  
19 week, a given time period that no refinery is  
20 disrupted, is something like 84 percent. And so  
21 that leaves the sum of approximately 16 percent  
22 for the chance that at least one will be  
23 disrupted. Most of that will be one, but there  
24 are some times when you get two, three, and four.

25 I'd like to turn it back to Thomas.



1 MR. GIESKES: Thanks, Tony.

2 And this is that real famous year, 1999,  
3 in more detail. It shows several things that  
4 we've already discussed before, how, even though  
5 most of these refinery problems occurred in the  
6 Bay Area, both the spot price in the Bay and the  
7 spot price in LA closely tracked. It had nothing  
8 to do with underlying crude oil changes, as shown  
9 in that bottom line. That's the line with all the  
10 little crosses in it, that's the line with the  
11 crude oil backed out.

12 And I know that we should not look at  
13 the spot price as the marker to determine the  
14 economic impact on the California gasoline  
15 consumer, and that there is a big time lag in the  
16 spot price between the -- between the spot price  
17 and the retail price. But on that ridge, though,  
18 those arrows work out quite the same. So the area  
19 under the spot curve, in terms of price increase  
20 over the price before, and the area underneath the  
21 retail price curve actually happen to track quite  
22 closely.

23 On slide 96, we are looking in more  
24 detail at what happened in that ill-fated year,  
25 1999. And what you see here, and this is a pretty

1 complex graph, it shows the production is as bars,  
2 and it shows the inventory as area. And what you  
3 can see here is that there was a drop in  
4 production, and then the inventory started to  
5 decline. And in both of these events, and then in  
6 subsequent events after that, you see periods  
7 where inventory recovered, and inventory declined.  
8 And the inventory curve is very directly related  
9 to the price spikes.

10 And that confirms a piece of market  
11 information that Gregg was telling earlier, is  
12 that traders very closely watch the inventory  
13 movement. If inventories are in decline, that's  
14 when the spot price goes up. When the inventories  
15 are going up again, that's when the spot price  
16 falls.

17 So inventory movements are quite crucial  
18 market indicators at this stage, and that's why  
19 the spot price, which is the primary indicator of  
20 price, is highly relevant here.

21 The lost production, on average, through  
22 these two series of events, was about 95,00  
23 barrels a day. We've identified 11,000 barrels  
24 per day of additional imports that are actually  
25 then reported as production by the refineries,

1       because most of the reported production numbers  
2       include imports of blending components and  
3       products by the refiners themselves.

4               And that, the net ex refinery production  
5       in those periods fell by about 84,000 barrels a  
6       day, as reported. The inventory drawdown over  
7       that period, and the inventory drawdown in that  
8       first sequence of events between -- and the dates  
9       are very squiggly here -- but between the first  
10      events in April through June, averaged about  
11      20,000 barrels a day. In that second series of  
12      events, where the inventory drop was steeper, it's  
13      about 30. But the average inventory drop was  
14      about 25,000 barrels a day. That means that  
15      during that period, the average net loss to the  
16      market, the net loss of supply, which by  
17      definition equals the net reduction in the amount,  
18      was about 60,000 barrels a day.

19             In that period the spot prices doubled,  
20      but the retail prices went up only 45 percent. So  
21      this is -- and it got all pieces of information  
22      that confirms what Tony was referring to earlier  
23      as the price, the shock price elasticity. This  
24      implies an elasticity of about minus .13, which is  
25      well in that range of minus .12, minus .2, that

1 Tony used in his modeling.

2 Now, the big question, of course, is how  
3 effective would a 2.3 million barrel reserve have  
4 been, if it had been available in 1999? And as  
5 Tony pointed out, from a theoretical point of view  
6 you can show that -- I think it was 1.3 million  
7 barrels would already have covered the 95  
8 percentile series of events, of disruptions quite  
9 effectively.

10 What you need to take into account, of  
11 course, is that we propose to split the reserve  
12 between the north and the south, but so that a  
13 million barrels up in the north and a million  
14 barrels in the south quite nicely fit within that  
15 1.3 million barrel range. So how effectively  
16 would a, say, would it have been if you had a  
17 million barrels in the LA Basin, and then another  
18 1.3 or so in LA at a point in time.

19 With the inventory drop being the most,  
20 say, watched parameter of market behavior, if you  
21 had been able to feed the 50,000 barrel a day that  
22 we propose as the max limits from a strategic  
23 reserve to the market, you would have been able to  
24 effectively compensate for the inventory drop.  
25 And the -- this would not have resulted in a

1       lessening of the additional imports to the tune of  
2       11,000 barrels a day, or maybe slightly higher, as  
3       the case may have been. But that would probably  
4       have enabled an even more rapid backfilling by  
5       imported barrels into the reserve, so the net  
6       inventory drop in that case might well have been  
7       lower than the 20 to 30,000 barrels a day right  
8       off the bat.

9               So in addition to the, say, supplying  
10       50,000 barrel a day, the capability of supplying  
11       50,000 barrels a day into this inventory drop of  
12       20 to 30, you also would have seen more imports  
13       materializing to backfill that. So that number of  
14       11 would have been substantially higher.

15              And, also, the effectiveness of a  
16       reserve, of a relatively small reserve, I think  
17       most of the price spikes, as Tony pointed out, had  
18       a duration of less than a week. Still, very often  
19       those price spikes have extreme results because of  
20       the volatility of the trading, and the lack of  
21       reporting, the lack of transparency, et cetera.  
22       And there is no doubt in my mind that the sheer  
23       presence of a reserve, of any reserve of any kind,  
24       would have been effective to prevent, say, the  
25       spurious price increases such as we've seen last

1 week, for instance.

2           So the effectiveness of the reserve, and  
3 even though there's a lot more work to possibly  
4 do, a lot more modeling studies, a lot more  
5 detail, but just from the, sort of the back of the  
6 envelope probe, this is the worst year in  
7 California history. This is the equivalent of the  
8 hundred year winter that was used to justify the  
9 northeast heating oil reserve. There's no doubt  
10 in my mind that if you had been able to supply  
11 50,000 barrels a day into these inventory declines  
12 of 20 to 30, you would have done a world of good.

13           Now, how does that translate into, say,  
14 cost effectiveness. If you know that it works,  
15 that's fine. Is it cost effective. And we have  
16 looked at the, say, the cost of tank leases, the  
17 cost of the initial fill, et cetera, et cetera.  
18 And we believe that you could effectively operate  
19 a reserve at a cost between 20 and \$30 million a  
20 year, cost to the taxpayer. It's a significant  
21 cost. It's a nice, like I said before, it's the  
22 sort of money that would come in handy on a rainy  
23 day. But it pales in comparison to the cost to  
24 the consumer of the current extreme volatility of  
25 the California gasoline prices.

1                   Now, this is a fairly complex graph, and

2                   --

3                   MR. HACKETT:  Thomas, you're one ahead  
4                   again.

5                   MR. GIESKES:  One, again.  Well, this  
6                   effectively has been covered.  This is slide 98, I  
7                   might as well skip this because it -- much of this  
8                   has been dealt with by Tony already.  The only  
9                   thing I would like to add to that is in case we do  
10                  see a chronic shortage, as might be the case when  
11                  MTBE is phased out before adequate alternative  
12                  supplies can be lined up, is that if you do have a  
13                  chronic shortage, that will remove some of that  
14                  initial price elasticity.  And if that's the case,  
15                  then the volatility in the market will no doubt be  
16                  more severe.

17                  That really doesn't want to show that --  
18                  ah, here we go.

19                  So I'm on slide 99 now, and that's a  
20                  slide that, for those that listen in, we have some  
21                  problems here with the switching mechanism between  
22                  slides, and the machine didn't want to show it,  
23                  and probably for good reason.  It's a rather  
24                  controversial slide, and we've referred to this,  
25                  in our internal discussions, to this slide as the

1 flames of hell.

2 (Laughter.)

3 MR. GIESKES: But let me walk you  
4 through what this is. This is the retail prices,  
5 the branded retail prices, minus Texas and minus  
6 the cost of crude oil to the refiner, estimated  
7 cost of crude oil to the refiner. And over a  
8 period that stretches from beginning of '99  
9 through current, or almost current.

10 And what that shows is the branded  
11 price, and then subtracted from -- so that we've  
12 subtracted under graded, rec price from the net  
13 retail price, and that gives you the net margin to  
14 the refiner. What we know from recent  
15 publication, this is the single largest refinery  
16 deal done in California. This was the \$1.1  
17 billion acquisition by Tesoro of the Avon Golden  
18 Eagle Refinery, and the public information  
19 surrounding that event, investor information, said  
20 that this particular company needed \$11.62 of  
21 crack spread on the three to one basis, that's  
22 three gasoline, two diesel, one jet. And just for  
23 the sake of information to show the relative order  
24 of required crack spreads for economic grants,  
25 we've plotted in this black line.



1           So this line by no means infers that we  
2       think that the prices ought to be managed at that  
3       level. There are refiners that have -- that are  
4       quite happy with lower crack spreads, there might  
5       be small refiners that actually need higher  
6       numbers. But this is the order of magnitude of a  
7       crack spread at which a refiner should be quite  
8       happy, and a refiner can justify a \$1.1 billion  
9       investment in the acquisition of a refinery.

10           What you see is that the market over  
11       very substantial periods, has been quite high  
12       above those levels, and that has to do with that  
13       extreme volatility, the lack of backfill behind a  
14       price increase. So prices in California can be  
15       substantially above those levels without adequate  
16       supply being mobilized. Normally, supply and  
17       demand would do their usual destructive work, and  
18       as soon as you see these sort of margins you would  
19       expect that more supplies would come in to the  
20       market, and then bring prices down quicker. That  
21       fact that that is not happening is largely due to  
22       the barriers to import that we outlined before.

23           Now, to show what a reserve might have  
24       done, and if reserves would have limited, and I'm  
25       only looking at the price effect in those two

1 events that we looked at before, in '99. And we  
2 say if you had had the reserve, you would have  
3 been able to limit that excursion to the branded  
4 cost of very high cost import materials, at that  
5 point in time. Alkalytes from the Gulf at 30 to  
6 40 cents above Gulf Coast gasoline, or some other  
7 exotic imports from Finland. Then it would have  
8 brought that down to about \$19 per barrel.

9 The area under the curve, so the area  
10 under the curve above that \$19 per barrel level,  
11 and those single two price spikes in '99,  
12 represent a value to the -- so that's about \$5 per  
13 barrel average, 12 cents per gallon over 90 days,  
14 equates to about half a billion dollars. And  
15 projected over a longer period, over all three  
16 years, the value is considerably higher, and is  
17 actually closer to 4.7.

18 Once again, this is a very good fit with  
19 the theoretical approach by Dr. Tony Finizza, who  
20 calculated that the effectiveness of the reserve,  
21 in terms of savings to the California gasoline  
22 consumer, on an average basis would have been  
23 between one and \$2 million per years. In a  
24 really, really bad year, maybe order of magnitude  
25 three to \$6 million a year. So these numbers are

1 fairly consistent with, say, the theory, and I  
2 think they're real.

3 And, of course, this can be defined in a  
4 lot more detail. We can do a lot more studies  
5 around this sort of thing, but when you see that  
6 the \$30 million of expenditure, the net savings to  
7 the California gasoline consumer are in the order  
8 of magnitude of, say, half a million dollar a  
9 year, if we approach it conservatively, then you  
10 are orders of magnitude apart. And that's exactly  
11 at the stage where we are. We've done these  
12 studies at a conceptual level, so far. There have  
13 not been data engineering estimates behind it,  
14 there have not been any tenders out to the  
15 industry yet to do any of this. There's a lot  
16 more study that needs to go on to define the  
17 operating principles of a reserve. It's a very  
18 novel concept.

19 But we believe that when you see the  
20 costs and the benefits being orders of magnitude  
21 apart, with very, very significant benefits, not  
22 just for the California gasoline consumer but, I  
23 believe, also for the industry as a whole, we have  
24 sufficient grounds to move on.

25 And with that, I'd like to hand it over

1 to Dave.

2 MR. HACKETT: There we go.

3 And so, with slide 102 up, I assure you  
4 this is the last one. We're just about done, we  
5 can go to lunch. And then I think we'll be able  
6 to come back and mix it up. We're looking forward  
7 to some good dialogue.

8 The conclusions here, I think, are  
9 fairly evident. This market has become import  
10 dependent. It used to be an export market, it's  
11 not, anymore. It's an import market. There are  
12 infrastructure problems in this market. In many  
13 respects, what we're talking about here, frankly,  
14 is it's the logistics, stupid, to paraphrase a  
15 presidential campaign of some years ago. This is  
16 about nuts and bolts and hardware, in many  
17 respects.

18 We see the market has been volatile, and  
19 we expect that the MTBE phase-out will increase  
20 that volatility because of the requirement for  
21 much higher levels of imports into facilities that  
22 aren't designed necessarily for those imports.  
23 And then we also maintain that as -- are as  
24 proposed, it can be a cost effective way to  
25 increase the liquidity and lower import barriers.

1                   And so these are things, lowering import  
2                   barriers, increasing liquidity, are vehicles that  
3                   improve supply, and then, in our view, will reduce  
4                   the volatility in gasoline prices. And that --  
5                   and I think I hit the conclusion at the wrong  
6                   point.

7                   The issue is volatility. The issues are  
8                   supply. But we think that the overall ability of  
9                   the state to improve the supply into the state  
10                  will reduce volatility, and we think that's good  
11                  for the consumers.

12                  Mr. Commissioner, I turn it back to you.

13                  PRESIDING MEMBER BOYD: Thank you, Dave.  
14                  And I want to thank Dave, Tom, and Gregg, and  
15                  Tony, for that very comprehensive, in depth, and  
16                  interesting and provocative presentation.

17                  As indicated earlier, we will break for  
18                  lunch, and return for a roundtable discussion this  
19                  afternoon.

20                  I'm not going to try to summarize the  
21                  morning, as I did at the last workshop, or state  
22                  any particularly cogent points, although there was  
23                  one comment that Gregg made, that I did make note  
24                  of, as I do every meeting make at least note of  
25                  one of Gregg's comments, but --

1 (Laughter.)

2 PRESIDING MEMBER BOYD: And I still have  
3 Chouxiang here, Gregg, from last time, and I  
4 thought it was almost appropriate if I said that  
5 right, almost appropriate to your comments about  
6 the overview of this subject never having been  
7 undertaken before. For those of you who missed  
8 the last workshop, that has something to do with a  
9 Chinese proverb that boils down to inhaling an  
10 elephant.

11 But, in any event, Gregg also said, you  
12 know, and from his standpoint, from his viewpoint,  
13 based on all the facts he'd reviewed to that point  
14 in time, there is no excuse for California to  
15 remain an island if it doesn't want to. And I  
16 thought that was a particularly relevant and  
17 provocative comment.

18 So I'll close the morning on that point,  
19 and we'll return at 1:30 to begin the roundtable  
20 discussion.

21 (Thereupon, the luncheon recess  
22 was taken.)

23

24

25

1 AFTERNOON SESSION

2 PRESIDING MEMBER BOYD: I guess we can  
3 get started again. I was kind of waiting for --  
4 oh, he is here. He was hiding. I was waiting for  
5 a special guest, I was about ready to say he's not  
6 here, and then somebody moved and all of a sudden  
7 I could see him.

8 So this, I want to open the meeting to  
9 the public and stakeholder questions, answers, and  
10 just kind of a roundtable discussion. And we  
11 agreed to accommodate one stakeholder who is in  
12 the midst of another meeting across town, and  
13 asked if possibly we give him a time certain, so  
14 that time certain is now. So I'd like to ask Mr.  
15 Henderson of WSPA to come to the podium.

16 MR. HENDERSON: Thank you very much,  
17 Commissioner Boyd. I very much appreciate your  
18 flexibility to accommodate my schedule difficulty.  
19 I mean that a lot, I appreciate it.

20 PRESIDING MEMBER BOYD: Oh, Doug, you  
21 know how flexible I am.

22 (Laughter.)

23 MR. HENDERSON: Commissioner Boyd,  
24 ladies and gentlemen, thank you very much for the  
25 opportunity to comment here today. I will be

1       brief.

2               I'm the president of the Western States  
3       Petroleum Association that represents a broad  
4       spectrum of refiners, marketers, and producers in  
5       this state. We are still in the process of  
6       developing specific comments on the Stillwater  
7       report for submission to your -- by your deadline  
8       of March 25th. We have, however, identified some  
9       issues which I'll briefly mention for you today.

10              We're extremely concerned about the  
11       hasty nature of your process, which I understand  
12       is driven by the legislative timetable. But  
13       nonetheless, this is a serious enough matter that  
14       any decisions made on your Strategic Fuels Reserve  
15       will have far-reaching and long-term impacts on  
16       our industry, and we fear a hasty approach will  
17       lead to outcomes that are not good for us or our  
18       customers.

19              Second, there are a number of complex  
20       practical issues which have yet to be addressed,  
21       such as will usage be enough to regularly roll  
22       over your inventory; how will supplies be  
23       replaced; how will terminal operators be assured  
24       of always being able to make a finished product  
25       from the components; will your SFR worsen price



1       instability during seasonal turnovers; is the  
2       reserve -- if the reserve is built as proposed,  
3       will it reduce incentives for others to hold  
4       inventories; and we think those are a beginning  
5       list of those kinds of concerns that we hope we  
6       will articulate for you a little better later.

7               We also are concerned that the  
8       Stillwater report overestimates the benefits of a  
9       reserve, based mainly on the events of 1999, which  
10      we don't think is a typical year for that kind of  
11      evaluation. A broader spectrum of data we think  
12      needs to be evaluated before you reach a  
13      conclusion based only on the 1999 experience.

14             In conclusion, we very much appreciate  
15      the work of this Commission and your Staff's hard  
16      work. But we also appreciate the enormity of the  
17      effort that we have undertaken together. And  
18      that's a concept I want to leave you with. Our  
19      industry hopes that we can provide good  
20      information to help this process along in a useful  
21      and meaningful way, and we're committed to do our  
22      part to do just that.

23             We very much look forward to working  
24      with you and the Staff to make this a good outcome  
25      for all Californians. Thank you.

1                   PRESIDING MEMBER BOYD: Thank you, Mr.  
2           Henderson. I appreciate your comments, and we'll  
3           take your few comments into consideration. I  
4           don't know if you have been advised by any Staff  
5           yet that this morning, we, I, in my introductory  
6           remarks, in recognition of the enormity and  
7           complexity of this issue, we did indicate, and  
8           since we had not provided people much advance look  
9           at this particular document, that we are going to  
10          hold yet another workshop on this topic, and we've  
11          extended the time period for written comments on  
12          this, as well.

13                   And I also appreciate the overall  
14          concern about the issue of timeliness. This is a  
15          very large and complex issue, and, you know, we  
16          always dance on the head of the pin. We, the  
17          public servants, when the legislature asks for  
18          something and establishes a deadline, we try to  
19          take as much time as possible and needed, but if  
20          we take too much time they'll get you other ways,  
21          like whack your budget or something. So we will  
22          do everything in our power to afford everybody as  
23          much time, until it begins to threaten our  
24          existence, let's just say.

25                   So hopefully, we can all work together

1 on this.

2 MR. HENDERSON: Thank you.

3 PRESIDING MEMBER BOYD: Thank you.

4 Now, the floor is open. I have no sign-  
5 up sheet, and it's going to be hopefully just kind  
6 of an informal whoever wants to say something, and  
7 the first one to rise or get their hand up is  
8 welcome to come to the mic and identify  
9 themselves, and make a statement or put questions  
10 to our consultants.

11 So, have at it, folks. Anybody who  
12 wants to be next? Somebody, somebody to break the  
13 ice. Thanks, Jay.

14 MR. McKEEMAN: Well, I can't pass up  
15 this opportunity, since our segment of the market  
16 was prominently mentioned in the report, you know.  
17 I do want to say that we've had a very good  
18 working relationship --

19 PRESIDING MEMBER BOYD: Can you --  
20 excuse me -- identify yourself and your  
21 association?

22 MR. McKEEMAN: I'm sorry. I am Jay  
23 McKeeman, with the California Independent Oil  
24 Marketers Association.

25 The report is, I think, an excellent

1 report. As has been commented upon earlier, it  
2 is, I think, the first time that a lot of  
3 different elements of the California market,  
4 especially the market, the recent California  
5 market, have been pulled together in a very  
6 effective way. It gives us a significant  
7 confidence in the conclusions of the report, in  
8 the fact that it's based upon what we observe day  
9 to day in the market, and what we observe in the  
10 literature and the trade press, and in other  
11 reports that have come out about the California  
12 market. This kind of pulls all of those elements  
13 and bits and pieces together in a very effective  
14 manner, and describes the current condition of the  
15 California market.

16 It gets to the heart of the problems  
17 that are faced by the independent marketers,  
18 especially regarding the chaotic condition of the  
19 pricing in the California market, and the problems  
20 that independent marketers have in surviving those  
21 sudden and rapid price spikes. We don't have a  
22 lot of -- our members don't have a lot of capital  
23 to withstand extended periods of being behind the  
24 market in a significant way, both wholesale and  
25 retail. So the more frequent the spikes, the

1 longer in duration the spikes, the harder it is  
2 for the independent marketer to remain in business  
3 in California.

4 And we think something needs to be done.  
5 There was a lot put on the table this morning, and  
6 certainly I'm going to have to take this back to  
7 my membership and go through it carefully. We, I  
8 think we, like many other participants in the fuel  
9 markets, are just basically intuitively disposed  
10 towards not having government get involved in any  
11 manner. And that's that, you know, there is a  
12 definite element of government intervention in  
13 this, but at the same time, the dilemma that we  
14 are facing is, number one, this is a market that  
15 was in many parts created by government, because  
16 of the unique fuel specifications. So government  
17 created the problem, in many ways, and maybe there  
18 is a reason for them to be involved in the  
19 solution.

20 But secondly, anything that can be done  
21 to moderate the spikiness of the market is going  
22 to be helpful to our members. The balancing act  
23 that we're going to have to try to go through is  
24 what do we give up to get a more desirable  
25 solution. And I don't have that answer today. I

1 think in taking a look at what's been prepared  
2 today, and in the draft report, we'll be able to  
3 give you some more cogent remarks in the future.

4 But I would like to comment on a couple  
5 of things that the report talks about, but doesn't  
6 really get to the bottom line.

7 The first issue, and this was certainly  
8 brought up in the MTBE discussion a few weeks  
9 back, there's an infrastructure problem. There is  
10 an infrastructure problem. It's there, regardless  
11 of whether there's a reserve or regardless of any  
12 other things that are going on in the market,  
13 there is a problem with infrastructure.

14 We need to look at ways that we can get  
15 that infrastructure built. Even if government was  
16 involved in developing a super terminal, or super  
17 terminals, they'd still have the same problems  
18 that private individuals have, in many ways, in  
19 that they'd probably have to go through CEQA,  
20 they'd have to be building facilities in places of  
21 -- in proximity to low income neighborhoods, and  
22 all the things that the refiners have to face in  
23 terms of dealing with -- and the pipelines, and  
24 the terminals, that our members have to face in  
25 developing infrastructure.

1           So I would encourage a very strong look  
2       at how, not only, you know, the -- the tangible  
3       aspects of where the -- what tanks are needed and  
4       where they're located, how do we get them put into  
5       place quickly and effectively. And I think the  
6       fact that the Energy Commission was a leader in  
7       getting power plants sited quickly and effectively  
8       gives us at least a path to look at, in terms of  
9       getting infrastructure located quickly. And this  
10      is beyond just the Strategic Fuels Reserve. This  
11      goes deeper into just having the adequate  
12      infrastructure to deal with California's fuel  
13      future.

14           The second issue is supply. And in many  
15      ways, this is just moving the shells around on the  
16      table. It doesn't fundamentally affect supply,  
17      getting more supply into California, except that  
18      you hope that the import markets will be stronger  
19      players here. And there's a certain element of,  
20      you know, rationality to that. But at the same  
21      time, I guess I get to the infrastructure issue.  
22      We ought to be looking at ways that we can help  
23      increase the capacities of our California  
24      refineries in the state. And then, you know, what  
25      can we do to get that more rapidly implemented so

1       that we build a stronger infrastructure here.

2               And this is all predicated on the  
3       presumption that California will need to have a  
4       different fuel standard than everybody else. I  
5       don't see really any difference in that, at least  
6       in the short term.

7               Finally, there's an irony here, and it  
8       was discussed by the consultants. And I refer  
9       back to the flames of fire, or flames of hell  
10      graph.

11              The profit motive of refiners is clearly  
12      defined in that graph. The refinery margins are  
13      really good when you have a spiky market, and a  
14      market that's -- that is not evenly supplied. So  
15      the conundrum is how do you get people that are  
16      going to benefit from those chaotic conditions to  
17      acquiesce that they're going to have to, you know,  
18      cut some of that margin to get into a smoother  
19      condition. That's more of a philosophical  
20      question than it is a pragmatic one. But it is, I  
21      think, really an issue that's going to be a  
22      difficult one to resolve.

23              And just from the observation of the  
24      independent marketer, it's certainly something  
25      that we think needs to be resolved, and we're here



1 to try to think of creative ways to do it. But,  
2 you know, we're looking at entirely market driven  
3 incentives. There is that question mark that lays  
4 out there of how to get the refiners to basically  
5 agree that the refinery margins would be less if  
6 we had a more stable fuel supply.

7 That's it. Any questions?

8 PRESIDING MEMBER BOYD: Thank you, Jay.  
9 Stick around, let me make a couple of comments,  
10 then I'm going to ask our panel of consulting  
11 experts if they want to say anything.

12 Your three points, just my own personal  
13 comments, infrastructure, that, of course, is  
14 something that I think is well identified, and the  
15 idea that perhaps this Commission can assist in  
16 the permitting and the permit streamlining  
17 associated with infrastructure is something we've  
18 talked about, and it's certainly a very valid  
19 point and very relevant in this state. And your  
20 analog is quite good.

21 Supply. You said look to increase  
22 capacity of California refineries. I invite the  
23 audience to testify later on their willingness,  
24 their desire to increase the capacity of  
25 California refineries. I think I, for one, have

1       been waiting for California refiners to say they  
2       really want to increase the capacity of their  
3       refineries, and help us do so. I would welcome  
4       such a request.

5               I think I mentioned at the last workshop  
6       such a challenge was put to this industry more  
7       than a year and a half ago, and no response ever  
8       received. So it's an interesting question that  
9       you bring up. But I call three of your points are  
10      on point and very interesting.

11             Your last one, I titled chaos. And  
12      basically, I didn't hear it as a question. I  
13      heard you make a -- I heard you identify an issue,  
14      or a problem we have to deal with, and I think  
15      you referred or alluded to the fact that perhaps  
16      some people like chaos. So yes, that is a hurdle  
17      that we need to deal with, and I think, as  
18      indicated earlier by one of the consultants, the  
19      fact that there's a broad overview being taken of  
20      this entire system, perhaps for the first time,  
21      will help shed light on some of these points. So  
22      I thank you.

23             Now, I throw it open to our panel of  
24      real experts. I'm just an amateur.

25             MR. HACKETT: First of all, Jay, thanks

1       for your comments. There is an awful lot of work  
2       that we've sort of laid on you in a hurry. You  
3       know, that report's 130 pages, there's a hundred  
4       slides, and the rest of that. And so it's going  
5       to take some time to digest.

6               And I guess all I want to say is that  
7       please touch base with us, with any questions that  
8       you have. If you need a meeting, a conference  
9       call, that sort of thing, and this goes for the  
10      rest of the stakeholders, as well. I mean, we've  
11      been having a continuing series of stakeholder  
12      meetings, and we want to continue to do that.

13             I know Doug Henderson addressed some  
14      concerns that the refiners have. Some of those  
15      have been worked out but not articulated. Others  
16      are still somewhat open questions. So we do see  
17      this as kind of a continuing process at this  
18      point.

19             MR. GIESKES: Jay, I'd like to add  
20      something, too. Maybe we didn't make it  
21      sufficiently clear, but certainly in the one  
22      recommendation that we had where we said there has  
23      to be a comprehensive approach towards  
24      infrastructure projects, the one stop shopping,  
25      the fast track, that was meant to include all

1        sorts of infrastructure projects, including  
2        capacity increases. So that's not limited to the  
3        strategic reserve itself, those two projects, or  
4        three projects.

5                The -- I think I'll leave it at that.

6                MR. HAGGQUIST: I would like to say that  
7        we were searching around for analogs, I said, to  
8        California, other places, so we don't make up our  
9        own fuzzy stories. And in that spirit, we looked  
10       at other island economies, Hawaii, in gasoline,  
11       it's out there. You can look in there. People  
12       know about it, where there was no way in. And  
13       once the way in was established, it changed the  
14       market entirely.

15               The same thing in Australia. In  
16       Australia, it happened five years ago, or so. I  
17       was involved in that. And in Australia, there was  
18       no way in. And so it the Wickland people who  
19       built the shore terminal, actually opened the  
20       terminal there. Changed that market entirely.  
21       Changes that market entirely.

22               And Japan, an island, there was no way  
23       in until the terminals opened and access was  
24       allowed. And the UK was closed to only the  
25       refiners, until blenders on the Thames River got

1 involved, and markets got involved. It became  
2 connected, each of these islands became connected  
3 to the global arbitrage of value.

4 And if you were to go back and look at  
5 these one by one, you would see that these markets  
6 did correct themselves. You're never going to  
7 remove volatility, but you'll remove chaotic  
8 volatility. And because the, once again, the  
9 physical basis and the flow of the product and the  
10 flow of the value, it's the flow that's blocked.  
11 It's the flow that's blocked. If you open the  
12 flow, things will change.

13 MR. McKEEMAN: Thank you very much.

14 PRESIDING MEMBER BOYD: Thanks, Jay.

15 Next? Is there anyone else?

16 MR. KOEHLER: Neil Koehler, with Kinergy  
17 Resources, representing the ethanol interests. I  
18 was going to sort of sit in the back and let the  
19 old guys say what they had to say, but I guess  
20 they're not too responsive at this moment. So  
21 it's, I'm not here to argue the relative merits or  
22 demerits of a strategic petroleum reserve, because  
23 that's sort of beyond the scope of our  
24 industry. But I would take exception  
25 with -- or, not exception, but just point out that

1       the disconnect that I have between the last  
2       workshop on the MTBE phase-out and the public  
3       comment and subsequent written comments, with the  
4       information in this report, that is the basis upon  
5       which to then recommend a strategic petroleum  
6       reserve; namely, specifically, on number nine in  
7       the -- on page 2, where the chronic shortage of  
8       gasoline in the California market will be  
9       aggravated to unprecedented levels by the proposed  
10      phase-out of MTBE by the year 2002.

11               And that was the subject of the workshop  
12      that we had on, I believe, the 19th. And since  
13      then, both in verbal testimony then and in written  
14      comments, there was a complete cross section of  
15      stakeholders that strongly disagreed with the  
16      conclusions of that report that comes to this same  
17      conclusion being restated.

18               Now, I know there has been some response  
19      to those comments, and that there is another  
20      report in the works which we've not yet seen, so I  
21      don't have the benefit of seeing how maybe those  
22      comments have been incorporated. But since it was  
23      so -- such a very strong and, you know, again,  
24      complete cross section of people that commented,  
25      saying that this is a conclusion that we do not

1 think is supported by facts on the ground, and  
2 facts in the future, I'm just concerned that  
3 essentially we are restating the same conclusions  
4 from that report, or draft, and we don't have a  
5 final report, we don't have a Commission report on  
6 that, and that we're restating those same  
7 conclusions as the basis, one of the bases upon  
8 which to recommend a strategic reserve.

9 So it's just a disconnect for me,  
10 personally, and I just would like to know exactly  
11 how we are going to be addressing those comments  
12 and how then that will be a part of this current  
13 analysis. So that's my most important point that  
14 jumps out at me.

15 I would also like to add two other  
16 points. One is that the, you know, in the  
17 comments right now, there is very active debate  
18 and movement towards adoption of renewable fuels  
19 standard on the fuels side that would replace the  
20 oxygenate standard. That clearly has very  
21 significant implications to the supply/demand  
22 analysis in California. It's the elimination of  
23 the oxygenate requirement, and this is a bill  
24 that's supported by virtually all of the main  
25 stakeholders back in DC, and that it certainly

1 meets the needs of California, as stated by the  
2 governor, in terms of flexibility, and it might  
3 also have a very significant bearing on some of  
4 these conclusions.

5 So given that that's not law, it may be  
6 hard to incorporate. But it's certainly a very  
7 relevant factor, because it looks like it has some  
8 major momentum.

9 Third, and I know this is part of other  
10 proceedings, but to the extent that we are trying  
11 to integrate this into a systems analysis, there  
12 in this report is no mention of the demand side  
13 considerations. And clearly, if we're going to be  
14 able to accommodate the, you know, the growth in  
15 population and be able to moderate what would be,  
16 and is projected to be in these various graphs,  
17 this unprecedented growth in demand for fuel, we  
18 have to deal with demand side to fuel economy --  
19 meet economy standards, alternative fuels,  
20 conservation, et cetera.

21 And as there is some potential  
22 corollaries between what's going on in the fuel  
23 side and the electric side, I would point out,  
24 while nobody thought it would be possible, the one  
25 most significant thing that happened was



1 conservation. That people, individually and  
2 collectively, responded to the request for  
3 conservation, and in a way that I think surprised  
4 everybody, came through, and I think saved, you  
5 know, kept the lights on in California due to the  
6 conservation efforts that were part of that.

7 So those are my comments, and I would,  
8 I'd like some guidance on how we are dealing with  
9 this, you know, this conclusion that I think is  
10 really unwarranted, that the MTBE phase-out at the  
11 end of the year is going to be causing this  
12 unprecedented shortfall, and just how that process  
13 is being incorporated, and the response to that  
14 report is being incorporated into this analysis.

15 Thank you.

16 PRESIDING MEMBER BOYD: Thank you, Mr.  
17 Koehler. Let me just state again kind of the  
18 position of the Energy Commission.

19 First, this is a workshop to hear the  
20 consultants' point of view on the subject today,  
21 so they're entitled to their point of view. As to  
22 integrating their point of view with other  
23 people's points of view, well, that's, I guess,  
24 the responsibility of the Commission overall, so  
25 you leave us with that charge and that is our

1 responsibility, and that wasn't an item for  
2 today's forum.

3 MR. KOEHLER: I understand.

4 PRESIDING MEMBER BOYD: So you'll have  
5 to wait like the rest of us on that point. But I  
6 want to relieve the consultants of that piece of  
7 the responsibility, and they can state their own  
8 opinion on the subject if it's not changed since  
9 the last time.

10 Congressional debate, that was your  
11 second point. I would agree with you that that's  
12 very relevant, and based on a lot of years in  
13 government I'll say I'll believe it when I see it.

14 (Laughter.)

15 PRESIDING MEMBER BOYD: So we'll wait  
16 and see when they finally decide something.

17 And lastly, your reference to one of my  
18 favorite things, systems analysis. The point, you  
19 know, I'm with you all the way on demand side  
20 aspects of these kinds of issues. We talked about  
21 it at the last workshop. We haven't talked about  
22 it much yet today. I would agree with you that  
23 demand side conservation is very important. Yes,  
24 it saved our bacon in the electricity business,  
25 and the American public, and the California public

1       like them, are very good at responding to  
2       declarations of emergencies.

3               And while some of us may feel in this  
4       room, or who are related with the subject, that  
5       we're flirting with an emergency, perhaps, until  
6       that emergency is declared it's a little hard to  
7       motivate the public to reduce their BMT, et  
8       cetera, et cetera. I spent 20 years of my life in  
9       a different forum trying to do -- use social  
10      engineering to reduce air pollution, and I've  
11      never abandoned the idea, but after getting  
12      sanctioned by the federal government two or three  
13      times for not getting the air clean, it kind of  
14      drove one into engineering solutions to the  
15      problems.

16             So that is a very valid point. It's  
17      something this organization will continue to  
18      consider and ask for. The effectiveness is a  
19      product of a lot of things, including, you know,  
20      the willingness of the public to receive the  
21      message and to respond to the message, and  
22      perceive that it's in their own self interest to  
23      deal with the message. And so either a lack of  
24      something or the price of something tends to  
25      really motivate people.

1                   And, while you and I may feel we're on  
2                   the threshold of an emergency, we don't declare  
3                   emergencies until they're really emergencies. So,  
4                   anyway, good points. Thank you.

5                   And now, David, you're --

6                   MR. HACKETT: Neil, thank you for your  
7                   points. I'd say on the first one, about the  
8                   disconnect, yes, we got considerable stakeholder  
9                   input on the MTBE phase-out recommendation, from a  
10                  wide range of groups, and we've taken all that in,  
11                  and our opinion remains that MTBE phase-out this  
12                  year would be a problem. That's been communicated  
13                  to the Energy Commission, and they're working on  
14                  their timetable for the Staff report.

15                  The second is, you know, whatever  
16                  Congress do, I'm not qualified to judge, I don't  
17                  know about that. On the consideration of the  
18                  demand side, the demand forecast that we've used  
19                  is essentially the one that the Energy Commission  
20                  developed. And so I'll throw that hot potato back  
21                  in their lap. It's essentially their number.

22                  MR. KOEHLER: Right. I understand that.  
23                  Thank you very much.

24                  PRESIDING MEMBER BOYD: Anybody else? I  
25                  can't believe this. I think I made a strategic

1 mistake at the beginning of this meeting by  
2 advising the fact that there'd be another chance  
3 for public presentations, we'd have another  
4 workshop. I should have let everybody just stew  
5 on the idea this is it, so you better speak today,  
6 because I think, like so many of us on our income  
7 tax, you know, you're going to wait until April  
8 15th, or the equivalent thereof.

9 Certainly there must be some point of  
10 view out there. Some comment, some -- well.  
11 Anybody have any good jokes?

12 (Laughter.)

13 MR. HACKETT: Let me interject that we  
14 focused an awful lot on the -- on the supply side  
15 of this, how to improve supply. And we feel very  
16 confident about how it got to the point of our  
17 recommendations around infrastructure and the  
18 like.

19 And then, as well, I mean, you know, I  
20 started my career in the Navy, and when I got an  
21 order I said aye, aye, sir, and I did it. And  
22 when the legislature or the Energy Commission said  
23 figure out how to make a strategic fuel reserve  
24 work, well, I think we did it. But what we've not  
25 told you yet, what we haven't gone through

1       thoroughly, is just exactly how this Gasoline Bank  
2       of California is going to work. And so there's  
3       guys sitting out here who trade every day, and I  
4       can two or three of my friends who are in this  
5       category, who wonder now, just exactly what does  
6       that mean. Okay.

7               We have not laid out all those rules and  
8       given you all that criteria, and sort of shaped it  
9       all. And that's -- we're going to be giving that  
10      more definition between now and the next workshop.  
11      And we may very well be asking some of you sitting  
12      out there to come and give us your opinion and  
13      some help with this thing, on an offline sort of  
14      basis. I mean, I'm at this point pretty confident  
15      that what we are considering, but haven't told you  
16      about in great detail yet, is something that's  
17      workable.

18             So, I know that some of you are out  
19      saying, you know, what the heck is this thing, and  
20      how is it going to work. And we've got some more  
21      work to do on that. I admit it. And we're going  
22      to be asking for some help.

23             MR. HAGGQUIST: I'd just like to add a  
24      little to that, because it seemed to me that we  
25      spent a lot of time leading up to setting the

1 scene for why we believe that some kind of  
2 strategic reserve is needed. That scene setting  
3 took a lot of time out our time budget, and it's  
4 going to take time for you to absorb it and buy  
5 into it, or not buy into it. We believe that  
6 everything that we've presented to you is factual,  
7 as far as infrastructure and barriers to supply.  
8 That brings us to the doorstep of the question of  
9 the strategic reserve and how it will be operated.

10 So we really are at the doorstep. And  
11 it seemed to me, I don't know how the procedure's  
12 going to work, Commissioner, but the next meeting  
13 with stakeholders ought to be some sort of shirt-  
14 sleeve environment in which we picture this thing.  
15 We say here it is, let's start putting oil through  
16 it, and let's start tearing it apart and building  
17 it up. And if there's no participation, then  
18 speak now or forever hold your peace, so to speak.

19  
20 MR. HACKETT: Of course, now, our  
21 fundamental assumption on all this is that you  
22 agree with us that there are infrastructure  
23 issues. These infrastructure issues have got to  
24 get solved before you start doing some -- taking  
25 the next step and working on the strategic

1 reserve.

2 So if you disagree that there are, in  
3 fact, there are not infrastructure issues, I want  
4 you to come up here and tell us that.

5 Note the stampede to the mic.

6 PRESIDING MEMBER BOYD: Yeah, I noticed  
7 that.

8 (Laughter.)

9 PRESIDING MEMBER BOYD: To fill the  
10 quiet just for a moment or two, let me go back to  
11 a couple of points that just crossed through my  
12 mind.

13 One, the discussion with Neil Koehler  
14 about demand and demand side, and his correct  
15 reference to the fact that looking at the whole  
16 system, we said that in the last workshop, we've  
17 get so many activities going on here concurrently  
18 that relate to this overall topic, and the -- I  
19 recall that, and I've been reminded that the  
20 demand side discussions have been reasonably  
21 extensive within the context of the dependence  
22 component of the study, AB -- the rest of AB 2076.  
23 And there's yet another workshop on that subject  
24 in --

25 MS. BAKKER: I believe it's the 28th.



1 March 28th.

2 PRESIDING MEMBER BOYD: March 28th. It  
3 escapes me, there are so many of late.

4 Anyway, there are multiple forums for  
5 that discussion to take place, and we are trying  
6 to see that this is an integrated view of the  
7 world. And I've lost my second point, so, in any  
8 event.

9 Oh, no, I haven't totally lost it. It  
10 was Jay's comment about government intervention,  
11 which I was reminded of by the discussion of  
12 creating a market and assumptions that maybe  
13 there's -- that there is an infrastructure issue  
14 out there that'll help perhaps create a market.

15 I'm certainly one who is very reluctant  
16 to want government to step in and fool around with  
17 things, unless it's for the greater good. Jay  
18 seemed to agree with that; however, pointed out  
19 that it was government that may have steered us in  
20 the direction and helped create the problem. So I  
21 appreciate his acknowledgement of the fact that  
22 maybe there is a role for government here.

23 As one who's invested too much of my  
24 recent life in the consequences of the electricity  
25 market experiment, and government's doing the best

1       it could, in my opinion, to step in and keep the  
2       lights on when they were probably going to go out  
3       within the next 72 hours of a certain date early  
4       last year, for better or for worse, yeah, we need  
5       to very cautiously approach creating markets and  
6       making sure that the vehicle is designed with the  
7       wheels on securely, and that adequate safeguards,  
8       and that too many people don't get at it, and the  
9       committee process ends up, you know, with a camel  
10      when they're trying to get a horse.

11               But by the same token, there's a lot of  
12      economics out there that does say that these  
13      gentlemen have a good point with regard to what it  
14      might -- what it might take to mitigate to some  
15      degree, not to a point of, you know, maybe  
16      indecent profits, to mitigate to some degree the  
17      adverse effects of what's happening out there now,  
18      based on actions that California State government  
19      has. The nation State of California has an  
20      economy it cares a lot about, and has to make sure  
21      it functions without getting too deeply involved.

22               In any event, some free-flowing  
23      observations.

24               Somebody was going to say something, or  
25      were they. Ah.

1                   MR. MOYER: I'm Craig Moyer, I'm with  
2                   Manatt, Phelps and Phillips. I represent the  
3                   Western Independent Refiners Association.

4                   I'm just a dumb lawyer trying to figure  
5                   all this out, but I have just a couple of  
6                   thoughts.

7                   PRESIDING MEMBER BOYD: Come on, Craig,  
8                   you've been around a long time.

9                   (Laughter.)

10                  PRESIDING MEMBER BOYD: Like me. You  
11                  and I have been looking at each other like this  
12                  for a lot of years.

13                  MR. MOYER: And I guess a couple of  
14                  observations on the logistical side. I don't  
15                  want to lose sight of the fact that refineries are  
16                  attempting to, and I have worked with refineries  
17                  who are increasing their capacity. Certainly it  
18                  comes across that they're increasing the amount of  
19                  gasoline, they're drawing from a barrel of crude,  
20                  but refineries are also increasing their crude  
21                  throughput marginally, as well, and I think that  
22                  that's an important point, one not to be lost in  
23                  this whole system. Because clearly, domestic  
24                  refining capacity is still cheaper than importing  
25                  this product.

1                   Then I guess, if I can -- tell me if  
2           this is a wrong sound bite. But essentially, the  
3           idea is that this strategic petroleum reserve  
4           would reduce spikiness -- which is a new word that  
5           I just learned today -- through increased  
6           liquidity in the form of increased storage  
7           capacity. And I think if that's the actual  
8           premise -- I'm not sure if I am the right person  
9           to answer that question -- but I think that if  
10          that is the premise, then we really do -- I'm not,  
11          we certainly haven't seen that every time in the  
12          past. To have more capacity may just mean you  
13          have lower prices for terminaling product, or  
14          crude, or whatever, terminaling materials around.

15                   And let me get into sort of the detailed  
16          questions. And we'll need a lot of talk about  
17          this, but I want to make sure again, if I just  
18          start with a premise here. We're talking about  
19          summer gasoline that'll be in this Strategic Fuel  
20          Reserve. And if -- I think it was page 23, or  
21          maybe 38, it's clear that there are also spikes in  
22          the wintertime. I shouldn't say that. There are  
23          refinery disruptions that occur in the wintertime.  
24          They're not limited there. So I don't know  
25          whether the assumption is that well, we just won't

1       use the Strategic Fuel Reserve in the winter, or  
2       you just think other things will take care of  
3       that. So I was wondering what the thinking was on  
4       just having summer CARBOB.

5               And then I suppose the other point is,  
6       how did we decide that a five million barrel  
7       reserve was the right number, when I think you  
8       guys are showing that, Tony's fine work  
9       statistically at least suggests that a very much  
10      smaller reserve would do the -- and therefore,  
11      much less government involvement, because, as a  
12      Libertarian, I want to see as least government as  
13      we possibly can here.

14             (Laughter.)

15             MR. MOYER: One of the reasons that my  
16      membership is so much smaller than it was a few  
17      years ago is because they were unable -- many of  
18      the small refiners were unable to make the changes  
19      necessary to make reformulated gasoline. And even  
20      if they are still producing, refining crude oil,  
21      they are generally now making it into asphalt and  
22      other products. Only one small refiner continues  
23      in gasoline production.

24             So those are my Gestalt observations.

25             (Laughter.)

1                   PRESIDING MEMBER BOYD: Very good.

2           Appreciate that. Let me turn it right over to  
3           David and his group.

4                   MR. HACKETT: Hey, Craig, thanks for  
5           those questions.

6                   Yeah, we did sort of wonder if we bid  
7           out for an increased terminaling it might hurt the  
8           margins on people that are already in the  
9           terminaling business. And so I'm sort of waiting  
10          for them to step up and say whether or not they  
11          want to bid for the opportunity to run one of  
12          these things and build more capacity, or if they  
13          think that this is going to hurt their margins.  
14          We're looking, you know, looking for their opinion  
15          on that.

16                   Sort of the second thing is the summer  
17          gasoline. Here's the issue, and that is that --  
18          there's a number of things. One is what we said  
19          was we put summer gasoline in this. Some of this,  
20          too, is sort of our southern California view on  
21          these things, where summer in southern California,  
22          if you're a gasoline blender, is eight and a half  
23          months. So that's most of the year, okay.

24                   If you look at the data, the spikes are  
25          almost -- the problems are almost always during

1 summer grade gasoline. There are some issues that  
2 happen in the November/December --

3 MR. MOYER: The price spikes, you mean?

4 MR. HACKETT: Price spikes, yes. The  
5 unplanned supply outages where there seems to be a  
6 shortfall in supply, and therefore a big run up in  
7 price, regardless what happens to crude oil, is  
8 generally a summertime blending season phenomenon.

9 So there's not a lot of demand for the  
10 winter -- won't be a lot of demand for the winter  
11 stuff, to start with. Then you, if you do bring  
12 in winter stuff and then you have to transition it  
13 in the spring, and so you would be faced in that  
14 case with having to dump the winter season  
15 gasoline right at the end of the season, and then  
16 refill with summer gasoline.

17 And so that clearly has a negative  
18 impact on the market. I mean, that's intuitive.  
19 But also, you can observe that in places like  
20 Germany, where in Germany, when the inventory goes  
21 bad it starts to grow bugs, as Gregg describes it.  
22 Well, they dump it in the market, which drives the  
23 market down, and then they come back and refill  
24 and that drives everything up, and, frankly,  
25 nobody's going to put up with that.

1                   So if you -- and then there's another  
2           issue of shelf life of gasoline. We've asked  
3           industry for their opinion on that. We guess that  
4           because CARBOB is going to be highly refined, low  
5           sulfur and the like, it's likely to be fairly  
6           stable, and therefore have a good shelf life. But  
7           we don't know that, so we've asked for an opinion  
8           from the experts on that.

9                   So what we see -- and then, finally, to  
10          address, you know, what if we do have a problem in  
11          the wintertime, it's likely that the refiners can  
12          deal with that. They can take the -- pump from  
13          the strategic reserve over to the refinery, the  
14          refiner will fix it up so it's winter grade, and  
15          then it can go from there. And so there may be  
16          some costs associated with that, but likely  
17          they're lower than this total issue of dumping it  
18          at the end of winter and refiling with summer  
19          grade.

20                   Is that enough detail?

21                   MS. BAKKER: I have one question that he  
22          brought up, that I had wondered about before, and  
23          I got an answer about. And that was, why don't  
24          you just increase throughput? What is it about  
25          the fact that you take out more MTBE, and



1       therefore you have lower production. And the  
2       answer I got was Title 5, the Clean Air Act  
3       amendments. And so could you explain that,  
4       please?

5               MR. GIESKES: Yeah. That, Susan, was  
6       indeed the feedback that we got from several  
7       refiners during the stakeholder meetings. And  
8       that deals more, I think, with small capacity  
9       increases, the capacity creep, than with major  
10      refinery expenses. And I think what was invited  
11      by Commissioner Boyd and what's being discussed  
12      here, is, I think, why don't we see more major  
13      refinery projects. Why, if you look at all the  
14      refinery projects that are on the books in the  
15      United States, there's actually an encouraging lot  
16      of refinery projects that mainly deal with sulfur  
17      removal upgrades and quality and capacity in the  
18      refining industry in general.

19             But I think a major refinery project in  
20      California, if -- just imagine this, and I don't  
21      want to be flip here, but you'll have to justify a  
22      major amount of capital. And during that, looking  
23      forward, you'd have to do price projections. The  
24      spikiness in the curve price projection. If  
25      anybody walks into, say, the board of a major oil

1 company and shows a forward projection at premiums  
2 that we currently see, you would probably be  
3 laughed out of the room.

4 So even though those current spikes have  
5 tremendous profitability for the refiners, they  
6 provide very scant justification for a refinery  
7 project. And I think actually, the -- if we bring  
8 market stability to California with the reserve --  
9 and I want to make some additional comments on the  
10 reserve -- it might actually further the  
11 investment climate, because these use  
12 fluctuations, if you had been standing up there  
13 in a board room defending a refinery project for,  
14 say, maybe a couple of hundred million dollars of  
15 expense and capacity, and you go through your  
16 usual winter bit, it would have been a difficult  
17 case to sell.

18 So stability is actually, I think, good  
19 for investment. And the scenario that I can  
20 imagine is that we build the storage. The storage  
21 is very, very much needed in California. We  
22 operate on such small inventory capacity that it's  
23 amazing that the system works as well as it does  
24 overall.

25 So we build the storage. And the

1 industry, I mean, may not like it, but say we put  
2 an inventory in there, you create some forward  
3 market liquidity. The market stabilizes, and now  
4 all of a sudden you see that behind the imports,  
5 people will start backfilling. But what you will  
6 have created is a fairly stable California market  
7 where the incremental barrel is a fairly expensive  
8 import barrel coming from a pretty remote  
9 location, and exotic quality. That will create an  
10 investment climate that is very, very attractive.

11 And here is a final comment to capacity  
12 versus storage to mitigate price range. And I  
13 don't want to sound flip here, but if I were a  
14 refiner, I wouldn't want to build too much  
15 capacity. If you want to create market stability  
16 through additional capacity where you could  
17 actually compensate for a refiner going out of  
18 service for awhile, you have to have a significant  
19 amount of capacity. That capacity is not going to  
20 sit idle during the rest of the year. So what you  
21 then see is, typically, your commodity business  
22 cycle of boom to bust. And those cycles move in  
23 Biblical terms, it's about seven years of famine  
24 and then one year of profit, and then seven years  
25 of famine. I came out of a business where that

1 was the mode.

2 And so if I were a refiner, I would  
3 actually welcome the addition of storage capacity,  
4 and some market stability at a fairly high level  
5 behind which I could add capacity in a regular  
6 way, without overbuilding the market. And that  
7 is, I think, a very likely scenario.

8 Once you get to that stage, and say now  
9 we are maybe five years out, and the reserve has  
10 been in operation for a couple of years, it's a  
11 very small -- it's two days of supply. I mean,  
12 it's not really a major quantity. And you get  
13 sufficient liquidity, you get sufficient imports,  
14 you get a market that becomes so predictable that  
15 you can actually hedge California gasoline to New  
16 York futures, and there is a pipeline connection  
17 that will also, once you get a link, pipeline link  
18 between east and west, it will also help as an  
19 arbitrating mechanism. You can pretty well  
20 imagine that the state says well, we don't need to  
21 incur these expenses of the reserve anymore.  
22 Let's abandon it.

23 But from the perspective of the state, I  
24 think this reserve is a very low risk type of  
25 investment, \$20, \$30 million a year for a couple

1 of years, bring stability to the market. This  
2 deal is not a waste. It's much needed. The  
3 inventory is peanuts, and that money is not lost.  
4 It's just sitting there, and you could, if you  
5 withdraw regularly, get out of it without  
6 upsetting the market.

7 I think it's actually much more  
8 beneficial to the industry than the industry cares  
9 to realize.

10 MR. MOYER: A couple of years,  
11 Commissioner Boyd. What do you think, a  
12 bureaucracy that survives for a couple of years?

13 (Laughter.)

14 MR. HAGGQUIST: I know you've been out  
15 there a long time, but I just want to address the  
16 specific questions you raised, which -- and, you  
17 know, a poor lawyer with good common sense  
18 question, that's what we really need.

19 The question of whether increased  
20 storage is going to increase liquidity, that was  
21 what you asked. Right?

22 MR. MOYER: That's the premise.

23 MR. HAGGQUIST: That's the premise, and  
24 that's correct. And this is -- to answer that,  
25 once again I go to examples. And as an example of

1       being an old guy. Having been there when the  
2       NYMEX was invented for heating oil into New York  
3       Harbor. I was one of those heating oil traders  
4       for BP, North American trading, and east of the  
5       Rocky Mountains. The way things were done then,  
6       there was no futures market. It was something  
7       like things are today, non-transparent market.  
8       And these guys came around with this crazy idea of  
9       setting up a futures market. And this was in the  
10      early eighties -- early eighties, right.

11               And, you know, who knows what a futures  
12      market is when you're, you know, at certain  
13      points. But the initial reaction, particularly  
14      from the refining and marketing sector  
15      established, entrenched interests, was this will  
16      never work, and this is kind of crazy. And that  
17      might work for grain or cocoa beans, but certainly  
18      not this precious commodity of heating oil, you  
19      know.

20               But lo and -- and what was the question  
21      that they asked most, that came to see me and  
22      other traders in the room. The first question  
23      that NYMEX didn't -- the inventors had to answer  
24      was, where is the terminal. Where's the delivery  
25      point, show me the delivery point. Once they

1 identified those terminals, the North Hill  
2 terminal in New York Harbor, other terminals,  
3 these are the delivery points. Here's where it  
4 happens. Here's where title and risk changes  
5 hands. That's what we do not have in California.

6 Now, same thing in Singapore. There was  
7 -- being an all night trader, we'd send cargoes  
8 out to Singapore. It was like going into the  
9 Bermuda Triangle. You don't know what the price  
10 is going to be when you get there, you really took  
11 your chances and held on for dear life. It's kind  
12 of like you do over here with gasoline coming into  
13 California. And they had the added cultural bias  
14 of not really trusting these future mechanisms in  
15 Singapore. But once again, the question was where  
16 can this happen. And once terminals came into  
17 Singapore, expanded terminal space, Singapore has  
18 become the most robust trading hub in the world,  
19 because of terminals' liquidity.

20 This has been good for the economy of  
21 Singapore. The NYMEX is good for the economy of  
22 New York and for the nation. And, yeah, arguably,  
23 I won't say it'll be of that magnitude, but once  
24 the games start in the private sector, and we --  
25 we provide the jumper cables, you don't know where

1       it's going to go, but it should be good.

2               Finally, one more thing from history,  
3       from real experience. I was also, besides being  
4       with Noah on the Ark, I was -- I told you up here  
5       in this talk, but you have to build consortium. I  
6       was a major company, I was Texaco in those days,  
7       during the oil shortage. These international --  
8       I remember, it was Braniff Airline and Pan  
9       American and United Airline, they would come  
10      knocking on your door. I've got a cargo of jet  
11      fuel in Singapore, let me bring it in. Let me  
12      bring it in. We're dying, you've got to supply us  
13      jet. We couldn't do it, you know, because we had  
14      to sell that jet based on our refinery's  
15      production in Seattle, or in San Francisco or in  
16      Hawaii, or in Alaska. And we didn't want this  
17      alien jet fuel from beautiful downtown Singapore  
18      or Korea, you know. We didn't want this stuff.

19              So, we wouldn't take it in. And they  
20      had bought it much cheaper, brought it there  
21      basically on the arbitrage I showed you. So the  
22      airlines got together, came in, got their own  
23      tanks, and said, by golly, we're going to be in  
24      this market, we need tanks. We're going to do it.  
25      And that's what happened. So now there is a



1 balance in the jet fuel market that we showed you  
2 on the slide.

3 So these are concrete specific examples  
4 of history and real locations. We think these can  
5 happen here in California.

6 MR. MOYER: All of those are private  
7 sector, I note. They're --

8 MR. HAGGQUIST: There's reasons for  
9 that. We won't go into that here, but maybe next  
10 time.

11 MR. MOYER: I can't help but --

12 MR. HACKETT: Gregg, I'm going to  
13 torture you just for one more second. You asked  
14 about why did Stillwater say five million and Dr.  
15 Finizza say one. A couple of reasons. One is  
16 that it's only been in the last few days that the  
17 two studies have intersected, and that we've seen  
18 the results of Dr. Finizza's analysis. So that's  
19 one answer.

20 The second one is that the legislature  
21 said two weeks of production, and that's 2.3  
22 million barrels. And we said look, there's got to  
23 be more tanks than just the stuff that we build  
24 for the Strategic Fuel Reserve, so that's how we  
25 got five million on our numbers.

1                   And there'll be some reconciliation back  
2                   and forth on that, as we go forward, ahead of the  
3                   next workshop.

4                   MR. SCHREMP: And Dave, I just might add  
5                   that that portion of Tony's analysis, that slide  
6                   that was in there, was average. Now, if he had  
7                   also inserted the 1999 base case that was shown,  
8                   then this would be much more than the one million  
9                   barrels. I just want to point that out. And  
10                  that's part of the process of just how you --

11                  MR. MOYER: That was the 1.3 million  
12                  number; right?

13                  MR. GIESKES: Well, yeah. I'd like to  
14                  play in on this, because this, indeed, we --  
15                  Tony's and our numbers got together the last  
16                  couple of days, one of those rare instances where  
17                  the back of the envelope practical approach and  
18                  the theoretical approach actually match up.

19                  The 1.3 number is for a particular price  
20                  disruption of a certain magnitude. But if you  
21                  look at, like we said, we have to split this  
22                  reserve in two parts, north and south, because the  
23                  logistics in California, if you say you do a  
24                  single reserve somewhere, you don't have  
25                  sufficient trucks and barges to compensate for a

1       shortfall in the other refining center, if your  
2       reserve happens to be in the wrong place.

3               We also looked at a central reserve  
4       somewhere, a linking of the pipeline systems is  
5       also more costly option, and not practically  
6       feasible. So you have to divide, you know, to  
7       conquer here. And the thing that you do then, is  
8       if you have, say, a one million barrel reserve in  
9       the north and a slightly larger one in the south,  
10      and you have just sufficient volumes.

11             Also, because we applied this reserve as  
12      a mechanism to set up forward liquidity, a lot of  
13      your barrels are actually going to -- you're going  
14      to be out of pocket. You will have 50 percent  
15      that's actually sitting in the tank, and another  
16      50 percent are sitting on the water, coming  
17      towards LA or the Bay.

18             And if you had a really serious  
19      disruption, and this is not something we had in  
20      our mandate, but we looked at it briefly, like a  
21      local earthquake or that sort of thing, knocking  
22      refining capacity out for a prolonged period, or  
23      some other security issues, it really is -- comes  
24      in quite handy to have a few more barrels on hand  
25      than the bare minimum. Because in actual fact, we

1       seriously looked at it. We said from a lot of  
2       these spurious price increases that -- where the  
3       market moves 18 cents on the rumor, all we need is  
4       50,000 barrels. You don't need that big of a  
5       reserve. So we looked at the smaller numbers, as  
6       well. But we think that actually the legislature  
7       had the right of a general order of magnitude  
8       number in the bill.

9               MR. MOYER: One of the slides that you  
10       showed said that yes, we do have a California,  
11       separate California market, but it doesn't look  
12       like there's a big split between northern and  
13       southern California now. And then certainly, we  
14       know that if at ten cents a gallon, you're going  
15       to see, you know, guys in their trucks driving  
16       north and south. So the idea of needing 100  
17       percent north and 100 percent south is a non-  
18       question.

19              MR. GIESKES: I -- no, we just looked at  
20       the -- how many barrel miles of transportation  
21       would be out there in case of a major refinery  
22       disruption and you had your reserve in the wrong  
23       location. And you would have to double the  
24       trucking capacity. And you would have to double  
25       the amount of barges that are currently in

1       circulation. There's not that much capacity in  
2       the transportation system to compensate for that.  
3       So we did look at that.

4               MR. FINIZZA: We do need to get our act  
5       together on that one. I kind of think that  
6       perhaps we have to decide whether we really need  
7       to protect against the '99 type year. That's the  
8       hundred year flood, and perhaps we don't. Perhaps  
9       a smaller amount is all you need.

10              MR. MOYER: Well, that was fun. Thank  
11       you.

12              PRESIDING MEMBER BOYD: Thank you,  
13       Craig. You provided interesting fodder.

14              Is there anyone else who has any  
15       questions or comments?

16              MR. HEINE: I'm Bruce Heine, with  
17       Williams.

18              A technical comment for Dave on slide  
19       54, as it relates to the de minimus MTBE  
20       concentration, and the translation that that would  
21       create additional challenges of infrastructure and  
22       storage.

23              My question is really related to last  
24       week's workshop at the Air Resources Board, where  
25       that issue was addressed. And the ARB has decided

1 to propose an amendment in the existing regulation  
2 regarding the de minimus MTBE levels, and there  
3 are a number of folks in this room that  
4 participated in that process. But it appeared,  
5 and it was fairly clear that those changes were  
6 made to try to minimize the possibility of  
7 rejecting any incoming cargoes of gasoline that  
8 would contain those trace levels of MTBE.

9 So my question is, is your slide before  
10 that workshop was made, or did you take into  
11 consideration what the Air Resources Board had  
12 done just last week?

13 MR. HACKETT: No, I think that the Air  
14 Board was having a workshop while we were doing  
15 the stakeholder meeting. And so we weren't able  
16 to attend that, and we don't have the latest  
17 update. So, and you're right, there are  
18 several -- a number of people here that'll bring  
19 some spiel in. Thanks for pointing it out.

20 MR. HEINE: Okay. That's my only  
21 question. Thank you very much.

22 PRESIDING MEMBER BOYD: Thank you.

23 MR. WHITE: Commissioner Boyd, Board  
24 Members, Panel Members, Jim White, with White  
25 Environmental Associates.

1                   I'm glad that Bruce brought that up. I  
2           really should have planned on giving a comment on  
3           that. As some of those of you attended that  
4           workshop know, last week I got up and gave some  
5           comments on the de minimus level. I think the  
6           Board should know, the California Energy  
7           Commission should know that the basis for that  
8           very, very low level, de minimus level, which  
9           they're shooting at .05, is artificially low.  
10          It's low because of political reasons. There's  
11          no technical reason behind it, there's no  
12          environmental protection reason behind it.

13                   And I think someone in the  
14          administration needs to take a close look at that,  
15          because it is, as Dave has pointed out, it is a  
16          further restriction to people trying to bring  
17          products, blending components and so forth, here  
18          to California. And it's a serious, serious  
19          matter, in my opinion.

20                   Thank you very much.

21                   PRESIDING MEMBER BOYD: Thank you.

22                   MR. HAGGQUIST: I think you're very  
23          right about that. It's -- it is not  
24          inconsequential. It's just about immeasurable,  
25          technically.

1 MR. WHITE: Absolutely.

2 MR. HAGGQUIST: And --

3 MR. WHITE: As a matter of fact, today  
4 it is.

5 MR. HAGGQUIST: Yeah, we --

6 MR. WHITE: They don't have a way to  
7 measure it at that level.

8 MR. HAGGQUIST: So, talking about  
9 barriers to supply in California, the de minimus  
10 ought to be in there as a barrier to supply.

11 PRESIDING MEMBER BOYD: Anyone else?  
12 Craig, you're -- you look like you were ready to  
13 rise up out of your chair.

14 MR. MOYER: I am, to leave.

15 (Laughter.)

16 PRESIDING MEMBER BOYD: Oh, okay.

17 Well, with that segue, let me thank  
18 everyone for being here today. Let me  
19 particularly thank our consultants from  
20 Stillwater, Dave Hackett, Gregg Haggquist, and Tom  
21 Gieskes, and our independent consultants, Drew  
22 Laughlin and Tony -- didn't say that right?  
23 Finizza, I can say that right. Gee, and I knew my  
24 Italian so well.

25 And the Staff and everyone else, and



1 look forward to your written comments, your in  
2 depth analytical view of the work that we've been  
3 presented, and shortly will be announcing -- we  
4 can't do it today, unfortunately, because we can't  
5 get calendars straightened out, but we'll be  
6 announcing the time for the next workshop,  
7 Committee meeting, whatever context we do it in to  
8 meet legal requirements. It'll still be a roll up  
9 your sleeve, loosen your tie, as informal as we  
10 can get it, workshop discussion of people's points  
11 of view, so we can move on with this.

12 So thank you all, and look forward to  
13 our next meeting.

14 (Thereupon, the Committee Workshop  
15 was concluded at 2:43 p.m.)  
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## CERTIFICATE OF REPORTER

I, PETER PETTY, an Electronic Reporter,  
do hereby certify that I am a disinterested person  
herein; that I recorded the foregoing California  
Energy Commission Committee Workshop; that it was  
thereafter transcribed into typewriting.

I further certify that I am not of  
counsel or attorney for any of the parties to said  
Workshop, nor in any way interested in the outcome  
of said Workshop.

IN WITNESS WHEREOF, I have hereunto set  
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